

Vol. I

TRANSCRIPT OF RECORD

(Pages 1 to 512)

Supreme Court of the United States

OCTOBER TERM, 1944

No. 296

PANHANDLE EASTERN PIPE LINE COMPANY,
ILLINOIS NATURAL GAS COMPANY AND MICHIGAN
GAS TRANSMISSION CORPORATION, PETITIONERS,

vs.

FEDERAL POWER COMMISSION, CITY OF DETROIT,
COUNTY OF WAYNE, MICHIGAN, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT
OF APPEALS FOR THE EIGHTH CIRCUIT

PETITION FOR CERTIORARI FILED JULY 28, 1944.

CERTIORARI GRANTED JANUARY 3, 1945.

VOL. I.
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EIGHTH CIRCUIT.

No. 12,466

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Index, Volume I.

Original Print

Petition of Panhandle Eastern Pipe Line Company, Illinois Natural Gas Company, and Michigan Gas Transmission cor- poration to review and set aside an order of the Federal Power Commission.....	a	1
Nature of proceedings as to which review is sought.....	b	2
Facts and statute upon which venue is based.....	c	6
Points on which petitioners intend to rely.....	d	6
Exhibit A, Opinion No. 80 of Federal Power Commission.....	e	20

	Original	Print
Order of Federal Power Commission reducing rates, September 23, 1942	77	38
Exhibit B, Order of Federal Power Commission extending time within which to file new schedules of rates and charges, October 12, 1942	77	43
Transcript of Testimony before Federal Power Commission	1	45
Testimony		
Mandred K. Toepgen	19	46
C. H. M. Burnham	337	101
Rufus M. Smith	421	128
Glenn G. Bartle	433	137
R. J. Wallace	441	139
Louis Fenn Sperry	457	139
Oscar William Morton	473	151
P. McDonald Biddison	491	156
O. W. Morton, resumed	523	200
C. H. Hinton	513	200
C. H. M. Burnham, resumed	713	239
Leith V. Watkins	839	261
Minutes of meeting of Board of Directors of Puget Sound Eastern Pipe-Line Company, September 1, 1939	841	261
David Friday	921	302
P. McDonald Biddison, resumed	982	321
Paul Brown Coffman	991	328
P. McDonald Biddison, resumed	1100	330
C. H. Hinton, resumed	1305	397
P. McDonald Biddison, resumed	1408	404
Leith V. Watkins, resumed	1470	404

Index, Volume II.

Louis Fenn Sperry, recalled	1490	321
Ralph E. Davis	1496	322
J. D. Creveling	1594	349
George S. Young	1664	374
Henry C. Lehn	1674	384
Howard S. Riddle	1692	387
Francis S. Haberly	2219	601
Fred A. Spitznagle	1811	632
George S. Young, resumed	1900	640
Robert S. Drew	1911	647
Francis S. Haberly, resumed	1932	672
Fred A. Spitznagle, resumed	1952	682
Daniel C. Green	1971	691
Walter C. Beckjord	2016	700
P. McDonald Biddison, resumed	2119	713
Excerpt from Exhibit 62	2627	740
O. W. Morton, resumed	2664	822
Letter, O. W. Morton to G. J. Neuner, August 19, 1941	3142	906

Index, Volume III.

P. McDonald Biddison, resumed	3316	1049
Letter, J. D. Creveling to Leon M. Fuqua, July 23, 1941	3645	1053

	Original Price	
Letter, Leon M. Fogarty to J. D. Creveling, July 28, 1941	3645	1054
Telegram, Panhandle Eastern Pipe Line Company to Leon M. Fogarty, July 28, 1941	3646	1055
Exhibit B.A. Statement relating to Reproduction Cost New of Plant, Property and Business of Panhandle Eastern Pipe Line Company, etc.	3750	1073
Paul M. Smith, examined	4143	1164
C. H. Hudson, examined	4162	1174
Edna M. Smith, examined	4167	1179
Arthur C. Barth, examined	4372	1271
Paul F. Henry, examined	4388	1287
C. H. Hudson, examined	4771	1429

Index, Volume IV

C. H. M. Davidson, examined	5600	1595
-----------------------------	------	------

Index, Volume V

Leah V. Watkins, examined	6110	2087
Paul D. Coffman, examined	6204	2111

Index, Volume VI

Leah V. Watkins, examined	7100	2214
Letter, Ralph M. Shaw to Frank A. Tamm, October 1, 1940	7300	2326
Paul D. Coffman, examined	7301	2327
George W. Young, examined	7302	2328
Edward C. Barth, examined	7303	2329
F. D. Heston, examined	7372	2407
Paul A. Bartholomew, examined	7373	2408
Examination of L. B. T. T. Tamm, Commissioner of National Gas	8175	2580
Exhibit A. Review of the investigation conducted in connection with the investigation of the investigation	9100	2700
Edward C. Barth, examined	9101	2701

Index, Volume VII

Paul A. Bartholomew, examined	9441	2850
George W. Young, examined	9442	2851
Letter of Recommendation and Exchange Recommendation to the Bureau of Customs and the Bureau of Investigation, et al.	9443	2852
Edward C. Barth, examined	9444	2853
Edward C. Barth, examined	9445	2854
Paul A. Bartholomew, examined	9446	2855
Edward C. Barth, examined	9447	2856
Leah V. Watkins, examined	9448	2857
Letter of Federal Power Commission denying application for Extension of Time for Compliance with the provisions of Gas Plant Accounts Instruction 2 D of Uniform System of Accounts and Commission's Order No. 73	9449	2858
C. H. Lewis	9450	2859
Leah V. Watkins, examined	9451	2860
	9452	2861
	9453	2862
	9454	2863
	9455	2864
	9456	2865
	9457	2866
	9458	2867
	9459	2868
	9460	2869
	9461	2870
	9462	2871
	9463	2872
	9464	2873
	9465	2874
	9466	2875
	9467	2876
	9468	2877
	9469	2878
	9470	2879
	9471	2880
	9472	2881
	9473	2882
	9474	2883
	9475	2884
	9476	2885
	9477	2886
	9478	2887
	9479	2888
	9480	2889
	9481	2890
	9482	2891
	9483	2892
	9484	2893
	9485	2894
	9486	2895
	9487	2896
	9488	2897
	9489	2898
	9490	2899
	9491	2900
	9492	2901
	9493	2902
	9494	2903
	9495	2904
	9496	2905
	9497	2906
	9498	2907
	9499	2908
	9500	2909
	9501	2910
	9502	2911
	9503	2912
	9504	2913
	9505	2914
	9506	2915
	9507	2916
	9508	2917
	9509	2918
	9510	2919
	9511	2920
	9512	2921
	9513	2922
	9514	2923
	9515	2924
	9516	2925
	9517	2926
	9518	2927
	9519	2928
	9520	2929
	9521	2930
	9522	2931
	9523	2932
	9524	2933
	9525	2934
	9526	2935
	9527	2936
	9528	2937
	9529	2938
	9530	2939
	9531	2940
	9532	2941
	9533	2942
	9534	2943
	9535	2944
	9536	2945
	9537	2946
	9538	2947
	9539	2948
	9540	2949
	9541	2950
	9542	2951
	9543	2952
	9544	2953
	9545	2954
	9546	2955
	9547	2956
	9548	2957
	9549	2958
	9550	2959
	9551	2960
	9552	2961
	9553	2962
	9554	2963
	9555	2964
	9556	2965
	9557	2966
	9558	2967
	9559	2968
	9560	2969
	9561	2970
	9562	2971
	9563	2972
	9564	2973
	9565	2974
	9566	2975
	9567	2976
	9568	2977
	9569	2978
	9570	2979
	9571	2980
	9572	2981
	9573	2982
	9574	2983
	9575	2984
	9576	2985
	9577	2986
	9578	2987
	9579	2988
	9580	2989
	9581	2990
	9582	2991
	9583	2992
	9584	2993
	9585	2994
	9586	2995
	9587	2996
	9588	2997
	9589	2998
	9590	2999
	9591	3000

	Original	Print
William G. Maguire	9247	3300
Leith V. Watkins, resumed	9329	3351
David Friday, resumed	9349	3353
O. W. Morton, resumed	9364	3361
Charles W. Smith	9476	3411
Edward B. Dunn	9570	3433
Charles H. Hinton, resumed	9609	3478
C. H. M. Burnham, resumed	9784	3533

Index, Volume VIII.

Leith V. Watkins, resumed	9838	3557
Report, P. McDonald Biddison, Consulting Engineer, to J. D. Creveling, President, Panhandle Eastern Pipe Line Company, November 24, 1941	9890	3588
C. H. M. Burnham, resumed	9898	3592
Leonard Spacek	9928	3608
Letter, P. McDonald Biddison to Panhandle Eastern Pipe Line Company, April 8, 1942	9942	3616
P. McDonald Biddison, resumed	9977	3631
Paul B. Coffman, resumed	10076	3676
P. McDonald Biddison, resumed	10399	3853
Leith V. Watkins, resumed	10452	3882
P. McDonald Biddison, resumed	10534	3919
J. D. Creveling, resumed	10559	3933
Samuel Joseph	10659	3976
Statement relating to Production from Hugoton Field	10679	3987
Letter, O. W. Morton to Federal Power Commission, April 9, 1942	10698	3986
Letter, O. W. Morton to Federal Power Commission, April 11, 1942	10699	3990
J. G. Shattuck	10701	3991
Exhibits:		
1. Statement of operating Results of Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Company, 1938-1940	10775	4012
Operating Results	10775	4012
Cost, and Cost Less Reserves, of Plant and Operating Results as of December 31, 1938	10777	4013
Cost, and Cost Less Reserves, of Plant and Operating Results as of December 31, 1939	10778	4014
Cost, and Cost Less Reserves, of Plant and Operating Results as of December 31, 1940	10779	4015
Working Capital Estimate, December 31, 1938-39-40	10780	4016
Working Capital Estimate Approximate Payroll Basis, December 31, 1940	10782	4017
2. Determination of possible Revenue Reduction of Pan- handle Eastern Pipe Line Company and Michigan Gas Transmission Company	10783	4018
3. Excerpts from Registration Statement of Panhandle Eastern Pipe Line Company filed with the Securities & Exchange Commission, February 12, 1937, with respect to Gas Reserves	10785	4019

4, Excerpt from Registration Statement of Panhandle Eastern Pipe Line Company filed with the Securities & Exchange Commission, November 13, 1940, with respect to Gas Reserves	10786	4021
5, Excerpts from Registration Statement of Panhandle Eastern Pipe Line Company filed with the Securities & Exchange Commission, November 13, 1940, with respect to Design, Construction and Maintenance of Property	10789	4025
6, Statement of Operating Expenses and Taxes at 100% Load Factor Operation	10791	4029
7, Statement as to necessary Price per M. C. F. at 100% Load Factor	10793	4030
8, Statement of estimated Effect of 100% Load Factor on earning Power of System	10795	4030
9, Statement of Factor affecting the Nature and Magnitude of reported Net Incomes	10796	4031
10, Statement showing Effect of Variation in accounting Practices on Reported Incomes of an Enterprise	10799	4034
11, Chart showing Relation of Yield of United States Treasury Bonds and Notes	10800	4035
12, Statement showing United States Treasury Bond Yields	10801	4037
13, Chart showing History of Yields of United States Bonds, 1920-1939	10806	4045
14, Average Yield of United States Treasury Bond	10807	4047
14-A, Securities & Exchange Commission Releases Nos. 2775 and 2834—Findings and Opinion of the Commission in the Matters of Panhandle Eastern Pipe Line Company, et al.	10808	4047

Index, Volume IX.

Order of Securities & Exchange Commission Denying Applications in Part and granting Applications in Part	10842	4087
Supplemental Order of Securities & Exchange Commission amending Findings and Opinion	10844	4089
17, Miscellaneous Data concerning Property and Operations of Panhandle Eastern Pipe Line Company	10848	4090
Schedule 1, Panhandle Eastern Pipe Line Company System Compressor Stations	10848	4090
Schedule 2, List of Communities receiving Service directly or indirectly from Panhandle Company including Population and Number of Customers as of June 30, 1941	10849	4091
Schedule 3, List of Industrial Customers receiving Service direct from Panhandle Company System, June 30, 1941	10853	4099
Schedule 11, Panhandle Eastern System Summary — Miles of Pipe by Sizes, June 30, 1941	10926	4101
30, Testimony of Rufus M. Smith	10953	4103
Schedule 2, Estimated Original Gas Content in the Texas Panhandle Field under Acreage constituting Reserves of Panhandle Eastern Pipe Line Company as of July 1, 1941	10956	4125

	Original Print	
Schedule 3, Estimated Remaining Gas Content in the Texas Panhandle Field under Acreage constituting Reserves of Panhandle Eastern Pipe Line Company as of July 1, 1941	10987	4125
Schedule 5, Comparison of Open Flow Potentials in Texas Panhandle Gas Field	10990	4129
Schedule 6, Gas Acreage owned and under Gas Purchase Contracts held by Panhandle Eastern Pipe Line Company as of June 30, 1941	10991	4131
Schedule 7, Hugoton Production to Argus Natural Gas Company, Inc. by Panhandle Eastern Pipe Line Company, et al.	10992	41
Schedule 8, Texas Production to Panhandle Eastern Pipe Line Company	1099	4135
Schedule 9, Hugoton Production to Panhandle Eastern Pipe Line Company	10997	4143
Schedule 10, Hugoton Production to Panhandle Eastern Pipe Line Company	11000	4149
Schedule 11, Analysis of Cumulative Production to Main Line to and including Fiscal Month of June 1941	11003	4155
Schedule 12, Comparative Statement of Production and Purchases from each District for the two Years ended June 22, 1940 and June 22, 1941	11004	4157
36. Testimony of Glenn G. Bartle	11010	4159
Schedule 3, Estimated Original Gas Content in the Hugoton Field, (Kansas, Oklahoma and North Texas Panhandle), under Acreage constituting Reserves of Panhandle Eastern Pipe Line Company as of July 1, 1941	11038	4176
Schedule 4, Estimated unmetered Gas from Panhandle Eastern Pipe Line Company Wells in the Hugoton Field Kansas, connected to Argus Natural Gas Company, Inc. as of July 1, 1941	11041	4181
37. Testimony and Exhibits, Market Value of Leases of Panhandle Eastern Pipe Line Co.	11047	4187
R. J. Wallace	11047	4187
Summary of Market Value of Leases	11064	4199
38. Basic Statistics used in calculating Interest, ad valorem Taxes and operating Expense attributable to unused Capacity	12159	4203
39. Reproduction Cost New of Plant, Property and Business of Panhandle Eastern Pipe Line Company and subsidiary Companies as of June 30, 1941	12162	4206
Letter P. McDonald Biddison, Consulting Engineer, to Panhandle Eastern Pipe Line Company, August 29, 1941	12163	4206
Statement relating to Reproduction Cost New - June 30, 1941	12164	4207
Summary	12165	4207
39-A, Reproduction Cost New of Plant, Property and Business of Panhandle Eastern Pipe Line Company and subsidiary Companies as of June 30, 1941	13130	4208
Letter P. McDonald Biddison, Consulting Engineer, to Panhandle Eastern Pipe Line Company, August 23, 1941	13130	4208

Statement relating to Reproduction Cost New—June 30,		
1941.....	13131	4209
Summary.....	13133	4209
40, Table showing estimated Main Line Sales, years 1941-1946, inclusive.....	13149	4211
41, Graph showing Sales and Gas Plant by Years, Panhandle Eastern Pipe Line Company and Subsidiary Companies.....	13150	4213
42, Testimony of C. H. Hinton relating to Future Capital Expenditures and Operating Expenses in Production and Gathering System West and South of Liberal, Kansas.....	13151	4215
43, Schedules presented in connection with the written Testimony of C. H. Hinton.....	13193	4244
Schedule 1, Additional Capital Expenditures required to produce and gather Basic Load, or Present Requirements.....	13194	4244
Schedule 2, Additional Capital Expenditures required to produce and gather Anticipated Increased Load.....	13195	4244
Schedule 3, Estimate of Operation and Maintenance Costs—west of Liberal Panhandle Field—Basic Load.....	13196	4245
Schedule 4, Estimate of Operation and Maintenance Costs—west of Liberal Panhandle Field—Estimated Future Load.....	13199	4251
Schedule 5, Probable Production from Panhandle Eastern's own Wells and Wells under Gas Contracts (Panhandle Field) during the Period July 1, 1940 to December 31, 1956.....	13202	4257
47, Panhandle Eastern Pipe Line Company and Subsidiary Companies, future Capital Requirements, Gas Transmission Facilities, Liberal Station and Eastward.....	13206	4257
48, Statement showing Balance Sheets per Books Panhandle Eastern Pipe Line Company and Subsidiary Companies, as at each December 31, 1930 through 1940 and as at June 30, 1941.....	13207	4259
49, Income Statement per Books—Period from April 1, 1932 to December 31, 1941.....	13210	4265
50, Statement showing Earned Surplus per Books, Period from Commencement of Operations to June 30, 1941.....	13212	4269
51, Statement showing Capital Surplus per Books, Period from September 1, 1930 to June 30, 1941.....	13214	4273
52, Statement showing Investment in Gas Plant as at each December 31, 1930 through 1940 and as at June 30, 1941.....	13215	4275
53, Statement of Dividends paid on Class A and Class B Preferred Stocks from beginning to September 1, 1941.....	13217	4279
54, Statement of Dividends paid on Common Stock from beginning to September 1, 1941.....	13219	4280
55, Statement showing Comparison of Sales and Revenue, Principal Industrial Customers, years 1939, 1940 and 1941.....	13220	4281
55-A, Statement showing Comparison of Sales and Revenue, Principal Industrial Customers, years 1939, 1940, and 1941.....	13221	4283
56, Statement of Gas Produced, Period from April 1, 1932 to June 30, 1941.....	13222	4284
57, Statement of Gas Purchased, Period from April 1, 1932 to June 30, 1941.....	13223	4285

58. Statement of Gas Revenue, Period from April 1, 1932 to June 30, 1941 and Schedule showing Detail of Sales to various Types of Customers, 1939 and 1940.....	13224	4287
Schedule 1, Statement of Gas Revenue, Period from April 1, 1932 to June 30, 1941.....	13224	4287
Schedule 2, Detail of Sales to Gas Utilities, years 1939 and 1940.....	13225	4289
Schedule 3, Detail of Sales to Industrial Customers, years 1939 and 1940.....	13227	4293
59. Statement of Gas Revenue by States, Period from April 1, 1932 to December 31, 1941.....	48229	4297
60. Statement showing Sales Agreements with other Gas Companies as at June 30, 1941.....	13230	4299
61. Study of Current and Future Trends in Commodity Prices and Wages, by David Fridlay.....	13238	4310
Graph showing Wholesale Prices from 1800 to 1940.....	13239	4311
Index Numbers of Wholesale Prices of Commodities by Groups.....	13241	4313
Commodity Price Indexes of Ten Countries.....	13247	4318
Statement relating to Tax Collections in the United States, from 1913 to 1942.....	13258	4328
Index Numbers of Wholesale Prices of all Commodities by Months, from 1800 to 1940.....	13263	4333
Statement relating to Wholesale Prices for Week Ended September 20, 1941.....	13264	4335
Graph relating to Average Weekly Earnings in Manufacturing Industries of New York State from 1914 to 1941.....	13266	4339
Graph relating to Average Hourly Earnings and Average Actual Hours per Week per Worker in twenty-five Manufacturing Industries from 1914 to 1941.....	13267	4341
Graph relating to Average Cost of Living from 1935 to 1939.....	13268	4343
62. Deduction from Cost of Reproduction New for Depreciation and Present Value of Plant, Property and Business as of June 30, 1941.....	13270	4345
Letter from P. McDonald Biddison, Consulting Engineer, to Panhandle Eastern Pipe Line Company, September 30, 1941.....	13271	4345
General Summary.....	13272	4347
63. Investors' Appraisal of the Risk of Capital in the Natural Gas Industry as compared with other Divisions of the Utility Industry, Summary of Analyses, prepared by Paul B. Coffman, Vice-President of Standard and Poors Corporation.....	13321	4349
Table of Contents.....	13322	4349
Statement of Experience and Qualifications of Paul B. Coffman.....	13327	4354
Investors' Appraisal of Capital Risks in Various Divisions of the Utility Industry.....	13348	4371
Statement A. Investors' Appraisal of Risks of Capital for the years 1937, 1938, 1939 and 1940.....	13351	4373

Statement A-1, Investors' Appraisal of Risks of Capital for the Interim Period of 1941, January-August, Both Inclusive.....	13352	4375
Statement B, Investors' Appraisal of Risks of Capital for the years 1937, 1938, 1939 and 1940.....	13353	4377
Statement B-1, Investors' Appraisal of Risks of Capital for the Interim Period of 1941, January-August, Both Inclusive.....	13354	4379
Statement C, Investors' Appraisal of Risks of Capital for the years 1937, 1938, 1939 and 1940.....	13355	4381
Statement C-1, Investors' Appraisal of Risks of Capital for the Interim Period of 1941, January-August, Both Inclusive.....	13356	4383
Statement D, Investors' Appraisal of Risks of Capital for the years 1937, 1938, 1939 and 1940.....	13357	4385
Statement D-1, Investors' Appraisal of Risks of Capital for the Interim Period of 1941 January-August, Both Inclusive.....	13358	4387
Statement E, Investors' Appraisal of Risks of Capital for the years 1937, 1938, 1939 and 1940.....	13359	4389
Statement E-1, Investors' Appraisal of Risks of Capital for the Interim Period of 1941, January-August, Both Inclusive.....	13360	4391
Statement F, General Information Covering each Company as to the Nature and Size of the Business and the Territory served.....	13361	4393
64. Statistics supporting Data, Exhibit 63, Appendixes A, B, and C.....	13379	4414
Appendix A, Complete List of Companies studied and Reasons for eliminating those not used to determine Investors' Appraisal of Risks of Capital.....	13380	4414
Appendix B, Securities of forty-three Natural Gas Companies considered Representative of the Industry, etc.....	13387	4426

Index, Volume X.

Appendix C, Working Papers showing the Computation of Investors' Appraisal of the Risks of Capital.....	13398	4446
Water Companies.....	13399	4447
Electric Operating Utility Companies.....	13420	4461
Manufactured and Mixed Gas Companies.....	13465	4501
Natural Gas Companies.....	13495	4521
65. Study relative to Rate of Return on Panhandle Eastern Pipe Line Company prepared by Paul B. Coffman, Vice President; Standard and Poors Corporation.....	13533	4547
Table of Contents.....	13534	4547
Chart No. 1, Main Transmission System of Panhandle Eastern Pipe Line Co. and Subsidiary.....	13542	4559
Chart No. 2, Growth of Natural Gas Industry in United States of America from 1906 to 1940.....	13548	4567
Chart No. 3, Consumption of Natural Gas in United States of America from 1919 to 1940.....	13550	4571
Chart No. 4, Revenue from Natural Gas Consumed in United States of America from 1919 to 1940.....	13552	4573

	Original Print	
Chart No. 5, Average Revenue per M. C. F. from 1929 to 1940	13554	4575
Chart No. 6, Panhandle Sales by States, vs. Industry Consumption of Natural Gas from 1934 to 1940	13556	4577
Chart No. 7, Trends of Gross Revenue from 1934 to 1940, Panhandle vs. other Pipe Line Companies and Industry	13558	4579
Chart No. 8, Operating Ratio of Panhandle Compared with other Pipe Line Companies from 1934 to 1940	13560	4581
Chart No. 9, Trend of Revenue and Expenses of Panhandle Eastern Pipe Line Company from 1934 to 1940	13562	4583
Chart No. 10, Percent Earned on Invested Capital of Panhandle Based upon Capital Structure	13564	4585
Chart No. 11, Percent Earned on Invested Capital of Panhandle Based upon Net Property, Intangibles and Working Capital	13566	4587
Chart No. 12, Return to Common Stockholders of Panhandle Eastern Pipe Line Company from 1934 to 1940	13568	4589
Chart No. 13, New Tax Bill will reduce Income sharply Computations based on Operations — Twelve Months ended June 30, 1941	13570	4591
Chart No. 14, Percent Earned on Invested Capital of Panhandle Eastern Pipe Line Company — as of June 30, 1941	13572	4593
Chart No. 15, Percent Earned on Invested Capital of Panhandle Eastern Pipe Line Company — as of June 30, 1941	13574	4595
Chart No. 16, Historical Costs of Debt Capital of Panhandle Eastern Pipe Line Company—from 1930 to 1941	13576	4599
Chart No. 17, Effect of 1941 Refinancing of Panhandle Eastern Pipe Line Company	13578	4603
Chart No. 18, Historical Costs of Preferred Stock Capital of Panhandle Eastern Pipe Line Company from 1937 to 1941	13580	4605
Chart No. 19, Earnings — Price Ratios of Natural Gas Pipe Line Common Stocks from 1937 to 1940	13582	4607
Chart No. 20, Current Earnings — Price Ratios of Natural Gas Pipe Line Common Stocks	13584	4609
Chart No. 21, Cost of Financing Northern Natural Gas Company Common Stock — Offered to Public on September 10, 1941	13586	4613
Chart No. 22, Estimated Current Cost of Financing Common Stock of Panhandle Eastern Pipe Line Company	13588	4615
Chart No. 23, Continuing Growth of Panhandle System Indicates Future Needs for New Capital	13590	4617
Chart No. 24, Panhandle Eastern Pipe Line Company Invested Capital as of June 30, 1941	13592	4621
Chart No. 25, Preferred Stock Unusual in Natural Gas Pipe Line Companies	13594	4623
Chart No. 26, Earnings Necessary to Maintain Credit Position of Panhandle Eastern Pipe Line Company	13596	4625
Chart No. 27, Earnings Necessary to Maintain Credit Position of Panhandle Eastern Pipe Line Company	13598	4627
Chart No. 28, Overall Cost of Capital to Panhandle Eastern Based on Ideal Capital Structure	13600	4629

	Original Print	
Chart No. 29, Dollars needed Annually by Panhandle for Operations and Maintenance.....	13602	4633
Chart No. 30, Dollars needed Annually by Panhandle for Taxes.....	13604	4637
Chart No. 31, Dollars needed Annually by Panhandle to return Capital to Investors when Gas Reserves are Exhausted.....	13606	4639
Chart No. 32, Dollars needed Annually by Panhandle for current Capital Requirements — Bonds.....	13608	4641
Chart No. 33, Dollars needed Annually by Panhandle for current Capital Requirements — Preferred Stock.....	13610	4643
Chart No. 34, Dollars needed Annually by Panhandle for current Capital Requirements — Common Stock.....	13612	4645
Chart No. 35, Dollars needed Annually by Panhandle for total current Capital Requirements — Total Invested Capital.....	13614	4647
Chart No. 36, Dollars needed Annually by Panhandle to provide Service to Customers, a Fair Return to Investors and restore Invested Capital when Gas Reserves are Exhausted.....	13616	4649
Chart No. 37, Dollars needed Annually by Panhandle to Provide Service to Customers, a Fair Return to Investors and restore Invested Capital when Gas Reserves are Exhausted.....	13618	4651
Table for Chart No. 2, Growth of Natural Gas in the United States of America for the years 1906 to 1940, Inclusive.....	13619	4653
Table for Chart No. 3, Consumption of Natural Gas in the United States of America for the years 1919 to 1940, Inclusive.....	13620	4655
Table for Chart No. 4, Revenue from Natural Gas Consumed in the United States of America for the years 1919 to 1940, Inclusive.....	13621	4657
Table for Chart No. 5, Average Revenue per M. C. F. from Natural Gas Consumed in United States of America at Points of Consumption.....	13622	4659
Table for Chart No. 6, Natural Gas Sales by States for the years 1934 to 1940, Inclusive.....	13623	4661
Table for Chart No. 7, Trend of Gross Revenue, Panhandle Eastern Pipe Line Company vs. Other Pipe Line Companies and the Natural Gas Industry; 1934 to 1940 Both Inclusive.....	13624	4663
Table for Chart No. 8, Operating Ratio of Panhandle Eastern Pipe Line Company compared with other Pipe Line Companies exclusive of Taxes, 1934 to 1940.....	13625	4665
Table for Chart No. 9, Panhandle Eastern Pipe Line Company, Trend of Revenue and Expenses.....	13627	4669
Table for Chart No. 10, Percent Earned on Invested Capital, based upon Capital Structure.....	13628	4671
Table for Chart No. 11, Percent Earned on Invested Capital, based upon Net Property, Intangibles and Working Capital.....	13629	4673
Table for Chart No. 12, Return to Common Stockholders 1934 to 1940 Both Inclusive.....	13630	4675

Table for Chart No. 13, Consolidated Statement of Profit and Loss for the twelve months ended June 30, 1941	13631	4677
Table for Chart No. 14, Percent Earned on Invested Capital — twelve months ended June 30, 1941	13632	4679
Table for Chart No. 15, Percent Earned on Invested Capital in the twelve months ended June 30, 1941	13633	4681
Table for Chart No. 16, Computation of Weighted Average Cost Ratio of all Bond Issues 1930 — June 30, 1941	13634	4683
Table for Chart No. 17, Projection of Average Interest Cost, Debt Retirement and Amounts to be outstanding of Debt issued in the 1941 Refinancing	13639	4693
Table for Chart No. 18, Preferred Stock	13640	4695
Table for Chart No. 19, Earnings — Price Ratios on Natural Gas Pipe Line Common Stocks from 1937 to 1940	13641	4697
Table for Chart No. 20, Current Earnings — Price Ratios on Natural Gas Pipe Line Common Stocks	13642	4699
Table for Chart No. 21, Data regarding Public Offering of 355,250 Shares Northern Natural Gas Company Common Stock	13643	4701
Table for Chart No. 23, Statistics of Growth from 1936 to 1940	13644	4703
Table for Chart No. 25, Ratio of Preferred Stock to total Capitalization in Natural Gas Pipe Line Companies as of December 31, 1940	13645	4705
Table for Chart No. 26, Earnings Necessary to Maintain Credit Position based on Invested Capital as of June 30, 1941	13646	4707
Table for Chart No. 27, Earnings Necessary to Maintain Credit Position, etc.	13647	4709
Table for Charts Nos. 29 to 36, Inclusive, Dollars needed Annually to provide Service to Customers, a Fair Return to Investors and Return of Invested Capital when Reserves are Exhausted	13648	4711
Table for Chart No. 37, Dollars needed Annually to provide Service to Customers, a Fair Return to Investors and Return of Invested Capital when Reserves are Exhausted	13649	4713
69. Statement showing Amount of Depreciation on Book Cost of Property as of June 30, 1941	13709	4715
70. Reproduction Cost New of Plant, Property and Business as of June 30, 1941 (Determined from Valuation of September 30, 1938 by addition of Net Property Additions, plus Items of Working Capital, Value of Gas Purchase Contracts and Cost of Business Development from Valuation of June 30, 1941)	13711	4719
71. Valuation of Property, Plant and Equipment, September 30, 1938	13712	4719
Letter from P. McDonald Biddison, Consulting Engineer, to Panhandle Eastern Pipe Line Company, October 14, 1938	13713	4719

X 11

Statement relating to Appraisal of Property of Panhandle Eastern Pipe Line Company as of September 30, 1938	13719	4721
72, Statement of Net Additions to Gas Plant per Books from October 1, 1938 to June 30, 1941	14178	4723
74, Working Capital	14198	4724
Table I, Total Additional Necessary Materials and Supplies by Departments	14198	4724
Table II, Additional Necessary Materials and Supplies by Departments, Classified to show the Aggregate Supplies	14199	4724
Table III, Summary of Minimum Reasonable Amounts of Working Capital Currently Needed	14200	4725
Table IV, Total Cash, Prepayments, and Materials and Supplies Actually Maintained by the Company at Certain Dates in the Past	14201	4725
75, Natural Gas Supply, Value of Gas Reserves and Wells, February 1, 1937	14202	4726
Letter Ralph E. Davis, Inc., Engineers, to Panhandle Eastern Pipe Line Company and others, February 10, 1937	14203	4726
Table No. 2, Valuation of Producing and Proven Leases in Producing Area of Amarillo Field	14227	4744
Table No. 3, Valuation of Producing and Proven Leases in Producing Area of Hugoton Field	14228	4745
Table No. 8, Classification of Acreage Under Lease, February 1, 1937	14233	4745
76, Panhandle Eastern Pipe Line Company Natural Gas Supply	14243	4746
Letter, Ralph E. Davis, Inc., Engineers, to Board of Directors of Panhandle Eastern Pipe Line Company, November 12, 1940	14244	4746
Summary of Acreage in Amarillo and Hugoton Fields	14248	4751
77, Description of Physical Property of Michigan Gas Transmission Corporation	14251	4753
Testimony of George S. Young	14252	4753
Schedule 1, Compressor Stations	14272	4770
Schedule 2, List of Communities receiving Service from Public Utilities to whom Michigan Gas Transmission Corporation sells Gas Purchased from Panhandle Eastern Pipe Line Company, Population and Number of Customers as of June 30, 1941	14274	4771
Schedule 3, List of Industrial Consumers receiving Service on an Interruptible Basis indirectly from Michigan Gas Transmission Corporation System, June 30, 1941	14277	4779
Schedule 8, Michigan Gas Transmission Corporation Summary of Miles of Pipe by Sizes, June 30, 1941	14295	4781
79, Comparison of Daily provided Capacity to deliver Firm Gas with Maximum Daily Delivery of Firm Gas from System of Michigan Gas Transmission Corporation	14311	4783
79-A, Comparison of Daily provided Capacity to Deliver Firm Gas with Maximum Daily Delivery of Firm Gas and total delivery of Gas from the Pipe Lines owned or operated by Michigan Gas Transmission Corporation for the Winter Period of 1941-1942 to February 27, 1942	14312	4785

79-B, Total Delivery of Gas from Pipe Lines owned and operated by Michigan Gas Transmission Corporation on Days on which the Delivery of Firm Gas from System was the Maximum.....	14313	4757
80, Report of Inspection of Equipment in the Compressor Stations of the Michigan Gas Transmission Corporation by H. C. Lehn.....	14314	4789
81, Depreciation Study, Michigan Gas Transmission Corporation by H. S. Riddle.....	14321	4794
Letter, H. S. Riddle, Gas Engineering Department, to G. S. Young, Vice President, of Michigan Gas Transmission Corporation, November 10, 1941.....	14322	4794
Summary of Inspection Data.....	14323	4795
82, Accrued Depreciation on Compressor Station Structure, measuring and regulating Station Structures and Equipment and other Transmission Structures and general Equipment as of June 30, 1941 by Francis S. Haberly.....	14369	4796
83, Reproduction Cost new of Plant and Property of Michigan Gas Transmission Corporation as of June 30, 1941 by Francis S. Haberly.....	14375	4801
Letter Francis S. Haberly, Engineer, to G. S. Young, Vice President, Michigan Gas Transmission Corporation, October 27, 1941.....	14377	4801
Table of Contents.....	14378	4802
Statement of Francis S. Haberly.....	14379	4802
Summary.....	14389	4810
Reconciliation of Original Cost and of Reproduction Cost to reflect Changes due to Reclassification.....	14390	4811
Compressor Station Structures and Improvements.....	14391	4813
All Stations.....	14391	4813
Montezuma Compressor Station.....	14392	4813
Zionsville Compressor Station.....	14398	4818
Edgerton Compressor Station.....	14402	4821
Other Transmission System Structures and Improvements.....	14405	4824
All Locations.....	14405	4824
Montezuma Compressor Station.....	14406	4824
Zionsville Compressor Station.....	14407	4825
Edgerton Compressor Station.....	14408	4826
Mains.....	14409	4826
Compressor Station Equipment.....	14416	4831
All Stations.....	14416	4831
Montezuma Compressor Station.....	14417	4831
Zionsville Compressor Station.....	14427	4839
Edgerton Compressor Station.....	14433	4844
Measuring and Regulating Station Equipment.....	14437	4847
General Equipment.....	14438	4848
Office Furniture and Fixtures.....	14439	4848
Transportation Equipment.....	14440	4849
Stores Equipment.....	14441	4849
Tools and Work Equipment.....	14442	4849
84, Reproduction Cost new less Depreciation of Michigan Gas Transmission Corporation as of June 30, 1941 by Francis S. Haberly.....	14443	4850

	Original	Print
Summary.....	14444	4850
Compressor Station Structures and Improvements.....	14445	4851
Measuring and Regulating Station Structures.....	14446	4852
Other Transmission System Structures.....	14447	4852

Index, Volume XI.

Mains.....	14448	4853
Compressor Station Equipment.....	14449	4853
Measuring and Regulating Station Equipment.....	14450	4854
General Equipment.....	14451	4855
87, Materials and Supplies Restatement of Cost of Major Items as of June 30, 1941, Michigan Gas Transmission Corporation by Francis S. Haberly.....	14466	4856
Materials and Supplies.....	14467	4856
88, Michigan Gas Transmission Corporation — Comparative Balance Sheets, per Books as at December 31, 1936 to 1940, Inclusive, and June 30, 1941.....	14475	4863
89, Michigan Gas Transmission Corporation Statement showing earned Surplus per Books for the Ten Months ended December 31, 1936, years 1937 to 1940, inclusive, year and six months ended June 30, 1941.....	14477	4867
90, Michigan Gas Transmission Corporation — Statement showing Capital Surplus, per books, for the Ten Months ended December 31, 1936, years 1937 to 1940, inclusive, year and six months ended June 30, 1941.....	14478	4869
91, Michigan Gas Transmission Corporation — Preliminary Report on Original Cost Studies by Central Service Corporation.....	14479	4871
Statement A, Outline of Origin and Development.....	14489	4879
Statement A-1, Common Stock issued and Outstanding at January 1, 1940 and June 30, 1941.....	14492	4881
Statement B, Statement showing Acquisition by Reporting Company or Predecessors of Gas Operating Unit or System, etc.....	14493	4883
Statement D, Statement relating to Gas Plant as of January 1, 1940, etc.....	14494	4885
Statement E, Statement showing Summary of Adjustment relating to Gas Plant, etc.....	14495	4886
Statement F, Statement relating to Gas Plant as of January 1, 1940, etc.....	14496	4887
Statement G, Statement relating to Balance Sheet as of January 1, 1940, etc.....	14498	4891
Statement H, Statement relating to Suggested Plan for Depreciation, etc.....	14499	4893
Statement I, Statistical Information Relative to Gas Plant at June 30, 1941.....	14500	4893
92, Michigan Gas Transmission Corporation Statement showing Original Cost Depreciated to present Conditions as at June 30, 1941 and observed Depreciation as at June 30, 1941.....	14507	4903

93, Michigan Gas Transmission Corporation — Statement of Contributions made to Customers for Business Development for the years 1936, 1937 and five months ended May 31, 1938	14508	4905
94, Michigan Gas Transmission Corporation Statement showing working Capital as of June 30, 1941	14510	4908
95, Michigan Gas Transmission Corporation — Estimated Cost of Completing work in Progress at June 30, 1941 and Estimated Gross Income to be derived from the Completed Projects	14517	4919
97, Michigan Gas Transmission Corporation — Variation in Purchase Power of Dollar as Related to Gas Plant	14519	4921
Graph relating to Variation in Purchasing Power of the Dollar spent for Main Compressor Units	14522	4923
Graph relating to Variation in Purchasing Power of the Dollar spent for Steel Pipe	14523	4925
Graph relating to Variation in Purchasing Power of the Dollar spent for Station Structure Materials	14524	4927
Graph relating to Variation in Purchasing Power of the Dollar spent for Station Structure Labor	14525	4929
Graph relating to Variation in Purchasing Power of the Dollar spent for Station Equipment Labor	14526	4931
Graph relating to Variation in Purchasing Power of the Dollar spent for Mains Installations	14527	4933
Statement relating to Variation in Purchasing Power of the Dollar as related to "Gas Plant"	14528	4935
99, Michigan Gas Transmission Corporation — Statement of Income and Expense per books for years ended December 31, 1936 to 1940, inclusive, twelve Months ended June 30, 1941 and six Months ended June 30, 1941 and December 31, 1940	14530	4937
100, Michigan Gas Transmission Corporation — Statement of Income and Expense per books and after Adjustments and redistributions necessary to reflect the 2-6 months Period per books on an annual basis, for six months ended December 31, 1940 and June 30, 1941 and for twelve months ended June 30, 1941	14533	4943
101, Michigan Gas Transmission Corporation — Comparative Statement of Operating Revenues, for years ended December 31, 1936 to 1940, inclusive, twelve months ended June 30, 1941 and six months ended June 30, 1941 and December 31, 1940	14537	4951
102, Michigan Gas Transmission Corporation — Operation and Maintenance Expense per books for the twelve months ended June 30, 1941	14538	4953
103, Michigan Gas Transmission Corporation — Statement showing Gas Sales, Gas Transported, Gas used by Company, Line Losses and Gas Purchased for the years ended December 31, 1936 to 1940, inclusive, twelve months ended June 30, 1941 and December 31, 1940	14540	4957
106, Registration Statement of Panhandle Eastern Pipe Line Company No. 2-4597, filed with the Securities & Exchange Commission November 18, 1940, Excerpts from	14548	4959

	Original Print	
Cover and Pages 1 to 4.....	14548	4959
Pages 45 and 46.....	14593	4969
Pages 60 and 61.....	14608	4973
Page S-1, Auditor's Certificate.....	14626	4977
Pages S-3 to S-7, Balance Sheet as of December 31, 1940.....	14628	4979
Pages S-17 to S-24, Intangible Assets, etc.....	14642	4989
107, Report A-11488 of the Committee on Stock List, New York Stock Exchange, application for Listing of the first Mortgage and First Lien 3 ⁷ / ₈ % Bonds, Series B due November 1, 1960 of Panhandle Eastern Pipe Line Company.....	14651	5005
Page 1.....	14651	5005
108, Letter of P. McDonald Biddison re Provision for Retirements, Depletion and Amortization for year 1938.....	14732	5006
109, Letter of P. McDonald Biddison re Provision for Retirements, Depletion and Amortization for year 1939.....	14733	5007
110, Letter of P. McDonald Biddison re Provision for Retirements, Depletion and Amortization for year 1940.....	14734	5008
111, Letter of P. McDonald Biddison re Provision for Retirements, Depletion and Amortization for year 1941.....	14735	5009
112, Table of Subsidiary Companies of Panhandle Eastern Pipe Line Company.....	14736	5010
131, Future Division of Production between Fields Considering a reasonable expected Load Increase.....	14768	5015
132, Future Division of Production between Fields without Consideration for increased Loads.....	14769	5017
137, Acres used in Determining Weighted Average Pressures of Texas Panhandle Field.....	14783	5018
138, Dry Gas Production and Pressure Decline — Texas Panhandle Field.....	14784	5019
139, Estimated Intake Pressures at Sneed Compressor Station.....	14785	5020
140, Estimated Average Working Pressures at Well head for "Group Areas" shown on Exhibit 46.....	14786	5021
141, Annual and Cumulative Production from Panhandle Field, Texas.....	14787	5023
142, Summary of Cost of Gas Produced and Purchased — basic Load for the years 1940-46, inclusive.....	14789	5026
Schedule 1, Summary of Cost of Gas Produced and Purchased per M. C. F. by Fields — Basic Load for the years 1940 to 1946 inclusive.....	14790	5027
Schedule 2, Cost of Gas Purchased per M. C. F. By Fields — Basic Load for the years 1940 to 1946 inclusive.....	14791	5027
Schedule 3, Production Costs per M. C. F. Produced by Fields — Basic Load for the years 1940 to 1946 inclusive.....	14792	5031
Schedule 4, Transportation Costs per M. C. F. Produced by Fields — Basic Load for the years 1940 to 1946 inclusive.....	14793	5033
Schedule 5, Summary of Production and Transportation Costs per M. C. F. Produced by Fields — Basic Load for the years 1940 to 1946 inclusive.....	14794	5035

143. Summary of Cost of Gas Produced and Purchased — Estimated Future Load for the years 1940 to 1946, inclusive	14795	5036
Schedule 1, Summary of Cost of Gas Produced per M. C. F. by Fields — Estimated future Load for the years 1940 to 1946 inclusive	14796	5037
Schedule 2, Cost of Gas Purchased per M. C. F. by Fields — Estimated Future Load for the years 1940 to 1946 inclusive	14797	5039
Schedule 3, Production Costs per M. C. F. Produced by Fields — Estimated Future Load for the years 1940 to 1946 inclusive	14798	5041
Schedule 4, Transportation Costs per M. C. F. Produced by Fields — Estimated Future Load for the years 1940 to 1946 inclusive	14799	5043
Schedule 5, Summary of Production and Transportation Costs per M. C. F. Produced by Fields — Estimated Future Load for the years 1940 to 1946 inclusive	14800	5045
145. Panhandle Eastern Pipe Line Company — Compiled Registration Statement No. 2-4919 filed with the Securities & Exchange Commission December 21, 1941, Excerpts from	14824	5047
Gover and following Page	14824	5047
Pages 2 to 5	14827	5051
Pages 9 to 20	14834	5059
Page 21, Auditor's Certificate	14924	5083
Pages 23 to 29, Balance Sheet as of September 30, 1941	14926	5085
Pages 28 to 29, Reserves for Depreciation, etc.	14941	5099
147. Holding Company Act Release No. 3286, January 23, 1942 — Findings and Opinion of the Securities & Exchange Commission in the Matter of Columbia Gas and Electric Corporation; et al	15091	5107
Order	15114	5140
149. Statement showing Investment by Owners and Long Term Creditors at June 30, 1941, Panhandle Eastern Pipe Line Company	15117	5143
150. Financial Data of Common Stock Issues of Electric and Gas Utilities, Years 1935 to 1940, inclusive	15118	5145
151. Earnings — Price Ratios of Common Stocks in Various Divisions of the Utility Industry	15122	5153
152. Estimate of Federal Income and Excess Profits Taxes, applying Rates levied in the Revenue Act of 1941 to Net Income for the Year ended June 30, 1941, Panhandle Eastern Pipe Line Company	15131	5171
153. Statement of Cost of Business Development Period from April 1, 1932 to June 30, 1941, Panhandle Eastern Pipe Line Company	15135	5177
157-A. Agreement between Panhandle Eastern Pipe Line Company and Columbia Gas and Electric Corporation and Columbia Oil and Gasoline Corporation dated January 31, 1936 (Exhibit H-6)	15227	5183
157-B. Agreement between Columbia Oil and Gasoline Corporation and Columbia Gas and Electric Corporation and		

Panhandle Eastern Pipe Line Company and Henry T. Bush and C. Ray Phillips, receivers of Missouri-Kansas Pipe Line Company, dated as of June 1, 1936 (Exhibit H-9)	15237	5183
Exhibit A, General Release	15251	5200
Exhibit B, General Release to Receivers	15254	5202
Exhibit C, Release of Claim	15256	5203
157-C, Bound Volume containing Offer dated January 31, 1936 of Columbia Gas & Electric Corporation and Columbia Oil and Gasoline Corporation to the Receivers of Missouri-Kansas Pipe Line Company, Extension dated March 5, 1936, Modification dated April 22, 1936 and Acceptance dated April 29, 1936 (Exhibit I-2)	15258	5205
Letters	15266	5220
158, Statement showing Gas Revenue from Indiana Gas Transmission Corporation and Michigan Gas Transmission Corporation from November 1931 to November 1941, inclusive, Panhandle Eastern Pipe Line Company	15280	5233
160, Purchase Agreement dated February 2, 1942 between Panhandle Eastern Pipe Line Company and Glorv Forgan & Company and Kidd, Peabody & Company	15285	5241

Index, Volume XII.

161, Estimated Main Line Sales and Revenues, years 1941-1946, inclusive, Panhandle Eastern Pipe Line Company	15300	5271
162, Ten Years' Estimate (1941-1951) of Sales to Detroit and other Areas and Types of Sale	15301	5273
163, Financial Statement of Michigan Gas Transmission Corporation for Period ended December 31, 1941	15312	5295
Balance Sheet as of December 31, 1941	15313	5297
Assets	15314	5299
Liabilities	15315	5301
Income Statement	15317	5305
Gas	15318	5307
Non-Utility	15320	5311
Other Income	15321	5313
Other Deductions	15322	5315
Surplus	15323	5317
Gas Expenses	15335	5341
Statistical Report	15339	5349
Fixed Capital Expenditure, Report	15343	5357
164, Supplementary Statement of Financial Statement, Exhibit 163	15353	5377
165, Operating Budget of Michigan Gas Transmission Corporation for the year 1942, Excerpt from	15355	5381
Cover	15355	5381
Pages 3 to 53	15357	5383
Income Statement	15357	5383
Gas	15358	5385
Other Deductions	15359	5387
166, Statements showing Gas Purchase and Sales Transactions between Panhandle Eastern Pipe Line Company and Subsidiaries	15373	5413

XVX

167, Statement showing Checks of Michigan Consolidated Gas Company in favor of Michigan Gas Transmission Corporation drawn on National Bank of Detroit	15374	5415
169, Statement showing Percentage Increase or Decrease of Sales of Natural Gas of Michigan Gas Transmission Corporation for year 1937 to 1941, inclusive, to other affiliates	15376	5417
170, Certificate setting forth the Designation and certain of the Terms of the 5.60% cumulative Preferred Stock of Panhandle Eastern Pipe Line Company filed February 3, 1942, in Delaware	15378	5421
171, Certificate of Purchase and Retirement of Class A Preferred Stock of Panhandle Eastern Pipe Line Company filed February 14, 1942 in Delaware	15393	5434
172, Balance Sheets per Books Panhandle Eastern Pipe Line Company and Subsidiary Companies, as at each December 31, 1930 through 1941	15397	5437
173, Income Statement per Books, Period from April 1, 1932 to December 31, 1941, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15400	5443
174, Earned Surplus per Books; Period from Commencement of Operations to December 31, 1941, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15402	5447
175, Capital Surplus per Books, Period from September 1, 1930 to December 31, 1941, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15404	5451
176, Gas Plant — Panhandle Eastern Pipe Line Company and Subsidiary Companies as at each December 31, 1930 through 1941	15405	5453
177, Statement of Gas Produced, Period from April 1, 1932 to December 31, 1941, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15407	5456
178, Statement of Gas Purchased from Period April 1, 1932 to December 31, 1941, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15408	5457
179, Statement of Gas Revenue, Period from April 1, 1932 to December 31, 1941, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15409	5459
180, Statement of Gas Revenue by States, Period from April 1, 1932 to December 31, 1941, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15410	5461
181, Net Additions to Gas Plant per Books October 1, 1938 to December 31, 1941, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15411	5462
182, Comparative Statement of Depreciation, Depletion and Amortization of Unoperated leases authorized by Board of Directors and the amounts booked for the years 1937, 1938, 1940 and 1941; Panhandle Eastern Pipe Line Company and Subsidiary Companies	15412	5463
183, Statement showing Amount of Depreciation claimed in Federal Income Tax Returns and Settlement Basis for the nine months ended December 31, 1932 and the years 1933 to 1940, inclusive, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15413	5463

184, Comparative Statement of State, Local and Miscellaneous Federal Taxes Paid with the Amounts Accrued years 1936 to 1940, inclusive	15414	5464
185, Statement of Taxes Paid for the years 1936 through 1940, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15415	5465
186, Reconciliation Federal Income and Federal Excess Profits Taxes Paid with Amounts accrued years 1936 through 1940, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15416	5467
187, Panhandle Eastern Pipe Line Company and Subsidiary Companies' Statements and Copies of Contracts with Missouri Power and Light Company, Illinois Iowa Power Company, Caterpillar Tractor Company, Keystone Steel & Wire Company, R. Herschel Manufacturing Company and Peoria Malleable Castings Company, Excerpts from	15417	5469
Page 1, Statement concerning Contract with Missouri Power and Light Company	15417	5469
Page 2, Statement concerning Contract with Illinois Iowa Power Company	15430	5469
Page 3, Statement concerning Contract with Caterpillar Tractor Company	15442	5470
Page 4, Statement concerning Contract with Keystone Steel and Wire Company	15445	5471
Page 5, Statement concerning Contract with R. Herschel Manufacturing Company	15449	5472
Page 6, Statement concerning Contract with Peoria Malleable Castings Company	15452	5472
188, Panhandle Eastern Pipe Line Company Annual Report for the year 1940, Excerpts from	15458	5473
Pages 3 to 6, Annual Report for 1940	15458	5473
189, Panhandle Eastern Pipe Line Company Annual Report for the year 1941, Excerpts from	15472	5476
Pages 2 to 8, Annual Report for 1941	15472	5476
190, Comparative Statement of Operating and Maintenance Expenses year ended December 31, 1940 and 1941, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15486	5483
191, Reconciliation of Net Income per books with Net Income per Federal Income Tax Return for the year 1939, Panhandle Eastern Pipe Line Company	15490	5489
192, Reconciliation of Net Income per books with Net Income per Federal Income Tax Return for the year 1940, Panhandle Eastern Pipe Line Company	15491	5491
193, Analysis of Reserve for Depreciation of Gas Plant, years ended December 31, 1932 through 1940 and six Months ended June 30, 1941, Panhandle Eastern Pipe Line Company and Subsidiary Companies	15492	5493
194, Panhandle Eastern Pipe Line Company and Subsidiary Companies pro forma Consolidated Balance Sheet as of December 31, 1941 giving effect to financing Transactions consummated on February 6, 1942 and Acquisition on that Date of Capital Stock and Debt of Michigan Gas		

Transmission Corporation, and Indiana Gas Distribution Corporation, and Purchase of Certain Property of Ohio Fuel Gas Company	15494	5499
196, Panhandle Eastern Pipe Line Company and Subsidiary Companies pro forma Consolidated Income Account (Note A) for the year ended December 31, 1941	15499	5505
196, Panhandle Eastern Pipe Line Company and Subsidiary Companies pro forma Consolidated Income Account (Note A) for the year ended December 31, 1941 as adjusted to give the Effect to Federal Income and Federal Excess Profits Tax Rates proposed in Recommendation of Secretary of Treasury Morgenthau on March 3, 1942 before House, Ways and Means Committee	15502	5509
197, Panhandle Eastern Pipe Line Company and Subsidiary Companies Balance Sheet per books February 28, 1942	15506	5513
198, Panhandle Eastern Pipe Line Company and Subsidiary Companies pro forma Consolidated Income Account (Note A) for the twelve months ended February 28, 1942	15510	5519
199, Panhandle Eastern Pipe Line Company and Subsidiary Companies pro forma Consolidated Income Account (Note A) for the twelve Months ended February 28, 1942 as adjusted to give effect to Federal Income and Federal Excess Profits Tax Rates proposed in Recommendation of Secretary of Treasury Morgenthau on March 3, 1942 before House, Ways and Means Committee	15513	5523
200, Panhandle Eastern Pipe Line Company and Subsidiary Companies (including Michigan Gas Transmission Corporation and Indiana Gas Distribution Corporation) Comparative Statement of Gas Plant as of December 31, 1933, December 31, 1940, June 30, 1941, December 31, 1941 and February 28, 1942	15517	5527
201, Michigan Gas Transmission Corporation Gas Plant as at each December 31, 1931 through 1941	15519	5531
202, Panhandle Eastern Pipe Line Company and Subsidiary Companies, including Michigan Gas Transmission Corporation and Indiana Gas Distribution Corporation, Statement of Estimated Federal Income and Excess Profits Taxes for the year 1941 (based on the Revenue Act of 1941)	15520	5533
203, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement of Operation and Maintenance Expense year 1941 (restated to include Michigan Gas Transmission Corporation and Indiana Gas Distribution Corporation for entire year)	15525	5541
204, Panhandle Eastern Pipe Line Company and Subsidiary Companies 1942 Construction and Retirement Budgets Summary by Companies	15529	5545
205, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement of Certain Estimated Construction Expenditures for the year 1942	15537	5556
208, Financial Statement of Panhandle Eastern Pipe Line Company and Subsidiary Companies for the period ended December 31, 1941	15783	5556

Financial Statement of Panhandle Eastern Pipe Line Company and Subsidiary Companies.....	15783	5556
Financial Statement of Illinois Natural Gas Company.....	15822	5600

Index, Volume XIII.

Financial Statement of Panhandle Eastern Pipe Line Company.....	15838	5630
Statistical Report of Panhandle Eastern Pipe Line Company and Subsidiary Companies.....	15868	5688
209, Letter of Panhandle Eastern Pipe Line Company to Detroit City Gas Company dated March 30, 1936 designating the Office to which the latter Company should make Payment for Gas delivered pursuant to Contract of August 31, 1935.....	15899	5748
210, Index Numbers of Wholesale Prices of Commodities by Groups (1926=100).....	15901	5750
211, U. S. Department of Labor, Bureau of Labor Statistics Release of March 26, 1942 Wholesale Prices for the Week ended March 21, 1942.....	15902	5751
212, U. S. Department of Labor, Bureau of Labor Statistics, "Index Numbers of Wholesale Prices of All Commodities by Months, from 1800 to 1940 (1926=100).....	15904	5755
213, Table showing Average Hourly Earnings and Average Hours per Week per Wage Earner in twenty-five Manufacturing Industries from 1914 to 1942.....	15905	5767
214, Graph showing Average Hourly Earnings and Average actual Hours per Week per Worker in twenty-five Manufacturing Industries from 1914 to 1942.....	15912	5765
215, Table showing "Employment, Payrolls and Average Weekly Earnings in Representative New York State Factories, from 1914 to 1941 employment (Index Numbers with Average from 1925 to 1927 as 100).....	15913	5767
216, Indexes of Wholesale Prices and Cost of Living for certain months from 1913 to 1942 (1935-1939 = 100).....	15914	5769
217, Graph showing Indexes of Wholesale Prices and Cost of Living from 1913 to 1941.....	15916	5771
218, Testimony of Mr. Joe D. Creveling before the Securities and Exchange Commission on November 29, 1941, in the Matter of Columbia Gas & Electric Corporation, et al., File No. 59533, etc.....	15917	5773
219, Panhandle Eastern Pipe Line Company Gas Sales and Purchase Contracts, Copy of Report by Bureau of Internal Revenue and Related Correspondence.....	15931	5783
Exhibit A, Statement relating to Comparison of Values of Assets transferred to Panhandle Eastern Pipe Line Company by Missouri-Kansas Pipe Line Company, etc.....	15937	5789
Exhibit B, Schedule showing Sales of Various Units of Pipe Line Construction sold by Shippey, Maddin and Parish Gas Company, etc.....	15938	5790
Letter of Leith V. Watkins, Secretary-Controller, of Panhandle Eastern Pipe Line Company to N. F. Paxton, Assistant Secretary, Panhandle Eastern Pipe Line Company, November 7, 1941.....	15940	5792

X X h

	Original Price	
Waiver of Restriction on Assessment and Collection of Deficiency in Tax and Acceptance of Overassessment	15942	5794
Letter of J. P. Wenchel, Chief Counsel, of Treasury De- partment to Panhandle Eastern Pipe Line Company, April 11, 1940	15944	5795
Letter of Leith V. Watkins, Secretary-Controller, of Panhandle Eastern Pipe Line Company to J. P. Wenchel, Chief Counsel, for Treasury Department, August 21, 1940	15947	5798
Letter of J. P. Wenchel, Chief Counsel, of Treasury Department to Panhandle Eastern Pipe Line Company, October 3, 1940	15954	5811
Letter of Leith V. Watkins, Secretary-Controller, of Pan- handle Eastern Pipe Line Company to J. P. Wenchel, Chief Counsel, for Treasury Department, February 24, 1941	15956	5812
220, Panhandle Eastern Pipe Line Company Excerpts from Minutes of Meetings of Board of Directors relating to provisions for Depreciation, Depletion, and Amortization	15962	5818
Minutes of February 24, 1942	15963	5818
Minutes of January 25, 1941	15964	5818
Minutes of December 14, 1939	15965	5819
Minutes of December 22, 1937	15966	5820
Minutes of February 13, 1936	15967	5820
Minutes of February 15, 1933	15970	5821
Minutes of May 5, 1932	15972	5830
221, Panhandle Eastern Pipe Line Company and Subsidiary Companies Computation of working Capital Requirement	15975	5832
222, Panhandle Eastern Pipe Line Company and Subsidiary Companies Computation of Average return Earned on Net Investment for the period April 1, 1932 to December 31, 1941	15980	5835
222-A, Panhandle Eastern Pipe Line Company and Sub- sidiary Companies Comparison of Average Return Earned on Net Investment for the periods April 1, 1932 to Decem- ber 31, 1936, and January 1, 1937 to December 31, 1941	15982	5838
223, Panhandle Eastern Pipe Line Company and Subsidiary Companies substitute Estimate (less economic) of Addi- tional Capital Expenditures South and West of Liberal Compressor Station required to meet Peak-day Sales of 307,000 M. C. F., 1942	15983	5839
224, Panhandle Eastern Pipe Line Company and Subsidiary Companies substitute Estimate (less economic) of Addi- tional Capital Expenditures South and West of Liberal Compressor Station required to meet Peak-day Sales of 338,000, M. C. F., 1942	15984	5840
225, Panhandle Eastern Pipe Line Company and Subsidiary Companies Estimate of Operation and Maintenance Costs South and West of Liberal Compressor Station, 307,000 M. C. F. Continuous Daily Sales Capacity Operation at 70% Capacity Factor	15985	5841
226, Panhandle Eastern Pipe Line Company and Subsidiary Companies Estimate of Operation and Maintenance Costs		

XXIV

South and West of Liberal Compressor Stations, 307,000 M. C. F. Continuous Daily Sales Capacity Operation at 90% Capacity Factor.....	15987	5845
227, Panhandle Eastern Pipe Line Company and Subsidiary Companies Estimate of Operation and Maintenance Costs South and West of Liberal Compressor Station, 338,000 M. C. F. Continuous Daily Sales Capacity Operation at 70% Capacity Factor.....	15989	5849
228, Panhandle Eastern Pipe Line Company and Subsidiary Companies Estimate of Operation and Maintenance Costs South and West of Liberal Compressor Station, 338,000 M. C. F. Continuous Daily Sales Capacity Operation at 90% Capacity Factor.....	15991	5853
229, Capacity Study April 7, 1942 Continuous Daily Delivery Capacity — 307,000 M. C. F.....	15993	5857
230, Capacity Study April 7, 1942 completely looped and economically powered Main Line System with Economic Production Transmission Expenditures.....	15998	5862
231, Capacity Study April 7, 1942 revised completely looped and economically powered Main Line System with less Economic Production Transmission Expenditures.....	16003	5867
232, Michigan Gas Transmission Corporation Computation of Average Turn Earned on Net Investment for the period March 1, 1936 to December 31, 1941.....	16008	5873
233, Prospectus Panhandle Eastern Pipe Line Company \$10,000,000 First Mortgage and First Lien 3% Bonds, Series C, due January 1, 1962, and 150,000 shares 5.00% Cumulative Preferred Stock, Excerpts from.....	16009	5875
Page 1.....	16009	5875
Pages 3 to 8, Application of Proceeds, etc.....	16011	5877
Pages 11 to 13, Certain Proposed Acquisitions, etc.....	16019	5889
Page 16, Letter to Board of Directors, November 13, 1941.....	16024	5895
Page 66, Notes to Balance Sheets.....	16075	5897
Page 69, Notes to Income Account.....	16078	5899
234, Summary of Construction and Retirement Budget and Work Order Procedure.....	16095	5901
235, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement showing the Computation of Depreciation for Federal Income Tax Purposes for the year 1939 as claimed in Federal Income Returns.....	16097	5903
236, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement showing the Computation of Depreciation for Federal Income Tax Purposes for the year 1939 on the basis as settled with the Bureau of Internal Revenue.....	16098	5905
237, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement showing the Computation of Depreciation for Federal Income Tax Purposes for the year 1940 as claimed in Federal Income Tax Return.....	16099	5907
238, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement showing the Computation of Depreciation for Federal Income Tax purposes for the year 1940 on the basis as settled with the Bureau of Internal Revenue.....	16100	5909

243, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement of Estimated Federal Income and Excess Profits Taxes for the 12 months ended February 28, 1942 (based on Revenue Act of 1941)	16105	5911
244, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement of Budget Items included in Exhibit No. 205	16108	5917
245, Agreement between Columbia Gas & Electric Corporation and Panhandle Eastern Pipe Line Company dated February 5, 1942	16110	5924
246, Panhandle Eastern Pipe Line Company and Subsidiary Companies preliminary Determination of the second Installment of Purchase Price to be paid to Columbia Gas & Electric Corporation, computed in accordance with Provisions (Paragraph C) of the Agreement between Columbia Gas and Electric Corporation and Panhandle Eastern Pipe Line Company dated February 5, 1942	16123	5932
247, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement showing Certain Increased Costs not fully Present in Income Account (Exhibit 195 and 196) for the year 1941	16124	5933
248, Panhandle Eastern Pipe Line Company and Subsidiary Companies pro forma Consolidated Income Account for the year ended December 31, 1941	16125	5935
249, Panhandle Eastern Pipe Line Company and Subsidiary Companies pro forma Consolidated Income Account for the year ended December 31, 1941 (Note A), as adjusted to give effect to Federal Income and Federal Excess Profits Tax Rates proposed in Recommendation of Secretary of Treasury Morgenthau on March 3, 1942 before House Ways and Means Committee	16128	5939
250, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement of Rate Case Expense in Connection with Federal Power Commission Consolidated Dockets G-200 and G-207 including actual cost to February 28, 1942 and Estimated Cost to complete	16131	5942
250A, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement of Rate Case Expenses in Connection with Federal Power Commission Consolidated Dockets G-200 and G-207 including actual Cost to February 28, 1942 and Estimated Cost to complete	16131A	5943
251, Panhandle Eastern Pipe Line Company and Subsidiary Companies Statement showing pro forma Consolidated Net Operating Revenue as adjusted for a full Year's Cost (Note A) as allocated between regulated and non-regulated Sales for the year ended December 31, 1941	16132	5947
252, Panhandle Eastern Pipe Line Company and Subsidiary Companies Additional Information requested in re Exhibit No. 17	16138	5956
253, Study relative to Minimum Return Requirements of Panhandle Eastern Pipe Line Company (giving Effect to Property Acquisitions) prepared by Paul B. Coffman	16145	5961
Chart No. 1, Condensed Actual and pro forma Balance Sheets of Panhandle Eastern Pipe Line Company as of December 31, 1941	16149	5967

Index Volume XIV.

Original Print

Chart No. 2, Trend of Revenue and Expenses of Panhandle Eastern Pipe Line Company from 1932 to 1941 and pro forma	16150	5969
Chart No. 3, Percent Earned on Invested Capital of Panhandle based upon Net Gas Plant and Working Capital from 1932 to 1941	16151	5971
Chart No. 4, Percent Earned on Invested Capital of Panhandle based upon Capital Structure from 1932 to 1941	16152	5973
Chart No. 5, Return to Common Stockholders of Panhandle Eastern Pipe Line Company from 1932 to 1941	16153	5975
Chart No. 6, Percent Earned on Invested Capital of Panhandle pro forma for 12 Months ended February 28, 1942	16154	5977
Chart No. 7, Percent Earned on Invested Capital of Panhandle pro forma for 12 Months ended February 28, 1942	16155	5979
Chart No. 8, Working Capital of Panhandle Eastern Pipe Line Company is being Reinvested in Fixed Assets	16156	5981
Chart No. 9, Effect of Sinking Fund and Maturity Provisions of Debt and Preferred Stock of Panhandle Eastern Pipe Line Company	16157	5983
Chart No. 10, Investors' Appraisal of Overall Capital Risks in Various Divisions of the Utility Industry from 1937 to 1941	16158	5985
Chart No. 11, Investors' Appraisal of Overall Capital Risks 153 Stable Industrial Companies	16159	5987
Chart No. 12, Panhandle Eastern Pipe Line Company invested Capital as of February 28, 1942	16160	5989
Chart No. 13, Cost of Financing Panhandle Eastern Pipe Line Company First Lien and First Mortgage Series "C" S. F. 3's due January 1, 1962	16161	5991
Chart No. 14, Historical Costs of Debt Capital of Panhandle Eastern Pipe Line Company from 1930 to 1942	16162	5993
Chart No. 15, Cost of Financing Panhandle Eastern Pipe Line Company 5.60% Preferred Stock	16163	5995
Chart No. 16, Historical Costs of Preferred Stock Capital of Panhandle Eastern Pipe Line Company from 1936 to 1942	16164	5997
Chart No. 17, Record of Sales of Panhandle Eastern Pipe Line Company 5.60% Preferred Stock to Public from February 4 to March 30, 1942	16165	5999
Chart No. 18, Price to Public of Panhandle Eastern Pipe Line Company 5.60% Preferred Stock reduced on April 2, 1942	16166	6001
Chart No. 19, Record of Sales of Panhandle Eastern Pipe Line Company 5.60% Preferred Stock to Public from April 2 to April 10, 1942	16167	6003
Chart No. 20, Assumed Cost of Financing Panhandle Eastern Pipe Line Company 5.60% Preferred Stock	16168	6005
Chart No. 21, Earnings — Price Ratios of Natural Gas Pipe Line Company Common Stocks from 1937 to 1941	16169	6007
Chart No. 22, Average Earnings — Price Ratios of Natural Gas Pipe Line Company Common Stocks from 1937 to 1941	16170	6009

Chart No. 23, Accepted Earnings — Price Ratio for Panhandle Eastern Pipe Line Co. Common Stock	16171	6011
Chart No. 24, Minimum Earnings required for Common Stock of Panhandle Eastern Pipe Line Company	16172	6013
Chart No. 25, Minimum Earnings required to Maintain Credit Position of Panhandle Eastern Pipe Line Company	16173	6015
Chart No. 26, Minimum Earnings required to Maintain Credit Position of Panhandle Eastern Pipe Line Company	16174	6017
Chart No. 27, Prime Money Rates Monthly from 1930 to March, 1942	16175	6019
Chart No. 28, Commercial Loan Rates Charged Customers by Banks in Principal Cities — Monthly, from 1930 to 1942	16176	6021
Chart No. 29, Yields on U. S. Government and High Grade Municipal Bonds Monthly, from 1930 to March, 1942	16177	6023
Chart No. 30, Standard's Highest Grade (A1+) Corporate Bond Yields Monthly, from 1930 to March, 1942	16178	6025
Chart No. 31, Standard's Corporate Bond Yields — by Quality Rating Monthly, from 1937 to March, 1942	16179	6027
Chart No. 32, Standard's Public Utility Bond Yields — by Quality Rating Monthly, from 1937 to March, 1942	16180	6029
Chart No. 33, Bonds, Debentures and Notes issued by Natural Gas Companies from 1936 to 1941	16181	6031
Chart No. 34, Bonds and Debentures of Natural Gas Companies sold from January 1, 1936 to December 31, 1941	16182	6033
Chart No. 35, Yields on New Security Issues of Natural Gas Companies according to Quality Rating, from 1936 to 1941	16183	6035
Chart No. 36, Ideal Earnings Coverage Ratios for High Grade (A Group) Natural Gas Company Bonds	16184	6037
Chart No. 37, Debt Coverage Ratios for El Paso Natural Gas Company Actual and Adjusted to a 6-1/2% Rate of Return	16185	6039
Chart No. 38, Debt Coverage Ratios for Northern Natural Gas Company Actual and Adjusted to a 6-1/2% Rate of Return	16186	6041
Chart No. 39, Debt Coverage Ratios for Southern Natural Gas Company Actual and Adjusted to a 6-1/2% Rate of Return	16187	6043
Chart No. 40, Debt Coverage Ratios for Cities Service Gas Company Actual and Adjusted to a 6-1/2% Rate of Return	16188	6045
Chart No. 41, Debt Coverage Ratios for Mississippi River Fuel Corporation Actual and Adjusted to a 6-1/2% Rate of Return	16189	6047
Chart No. 42, Debt Coverage Ratios for Natural Gas Companies Adjusted to 6-1/2% Return on Net Property and Working Capital	16190	6049

Chart No. 43, Debt Coverage Ratios of Panhandle Eastern Pipe Line Company at Various Levels of Net Operating Revenue.....	16191	6051
Chart No. 44, Debt Coverage Ratios of Panhandle Eastern Pipe Line Company at Various Levels of Net Operating Revenue.....	16192	6053
Chart No. 45, Effect of Increased Gross Revenue and Taxes upon Panhandle's Net Operating Revenue.....	16193	6055
Chart No. 46, Calculation to show Rate of Return Necessary to Produce \$5,382,477 — Assuming Various Rate Bases.....	16194	6057
Tables supporting Various Charts.....	16196	6061
254, Investors' Appraisal of the Risks of Capital in 153 Stable Industrial Companies for the years 1937 to 1941, inclusive, prepared by Paul B. Coffman.....	16242	6153
Section I, Complete List of Industrial Companies whose Common Stocks were Listed on the New York Stock Exchange from January 1, 1932 to April 1, 1942, etc.....	16246	6161
Section II, Summary showing Computation of "Investors' Appraisal of the Risks of Capital represented by 153 Stable Industrial Companies".....	16250	6169
Section III, Working Papers showing the Computation of "Investors' Appraisal of the Risks of Capital" of each of the 153 Stable Industrial Companies.....	16254	6177

Index, Volume XV. and XVI.

Section IV, Working Papers showing the Computation of "Investors' Appraisal of the Risks of Capital" in the Natural Gas Industry as compared with other Divisions of the Utility Industry for the full Year 1941, etc.....	16530	6729
255, Letter of Panhandle Eastern Pipe Line Company dated April 11, 1942 to Mr. Park Chamberlain, and Tabulation of Comparative Statements of Demand Charges under Original and Supplemental Contracts, Panhandle Eastern Pipe Line Company and Michigan Consolidated Gas Company for Detroit.....	16582	6833
256, Letter Agreement between Columbia Oil & Gasoline Corporation, National City Company and Missouri-Kansas Pipe Line Company, dated September 19, 1930 and Contract dated September 17, 1930.....	16585	6839
257, Panhandle Eastern Pipe Line Company and Subsidiary Companies Reconciliation of Net Income per books with Estimated Excess Profits Net Income for the year 1941.....	16595	6853
258, Holding Company Act Release No. 3415 dated April 1, 1942, Findings and Opinion of the Securities and Exchange Commission in the Matter of Columbia Gas & Electric Corporation, File Nos. 59-33, etc.....	16599	6856
Order requiring Divestiture pursuant to Section 11 (b) (1) and Redistribution of Voting Power pursuant to Section 11 (b) (2).....	16606	6865
259, Weighted Average Earnings — Price Ratios on Common Stocks 153 Stable Industrial Companies.....	16608	6867

260, Panhandle Eastern Pipe Line Company Status of Proposed 1942 Construction Program, Production and Gathering System South and West of Liberal Station	16609	6868
261, Panhandle Eastern Pipe Line Company and Subsidiary Companies Main Line System Approximate Coincidental Maximum Day Sales during the Winter Periods of 1940-1941 and 1941-1942	16612	6871
262, Panhandle Eastern Pipe Line Company and its Subsidiary Companies Interruptible Customers Curtailment — January 4-12, 1942	16617	6881
263, Panhandle Eastern Pipe Line Company and Subsidiaries Allocation of Adjusted 1941 Costs between Regulated and Non-regulated Sales	16618	6883
264, Index of Gas Rate Schedule of Illinois Natural Gas Company, Michigan Gas Transmission Corporation and Panhandle Eastern Pipe Line Company	16621	6889
Schedule 12, Gas Contract between Panhandle Eastern Pipe Line Company and Detroit City Gas Company, August 31, 1935	1	6889
Supplement 2 of Schedule 12, Supplemental Gas Contract between Panhandle Eastern Pipe Line Company and Detroit City Gas Company, June 2, 1936	1	6920
266, Financial Statement of Indiana Gas Distribution Corporation for Period ended December 31, 1941	16643	6929
267, Panhandle Eastern Pipe Line Company and Subsidiary Companies Comparative Balance Sheets — per books, Comparative Earnings Summary — per books, Adjusted Earnings Summary and Gas Plant — per books as of March 1, 1941, and March 31, 1942	16676	6993
Complaint of City of Detroit and County of Wayne, Complainants v. Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Corporation, Defendants, filed February 28, 1941, Federal Power Commission, Docket No. G-200	16686	7002
Separate Answer of Michigan Gas Transmission Corporation filed March 28, 1941 in Docket No. G-200	16693	7008
Petition of Michigan Public Service Commission for Leave to intervene filed March 31, 1941 in Federal Power Commission, Docket No. G-200	16698	7011
Separate Answer of Panhandle Eastern Pipe Line Company filed April 3, 1941 in Federal Power Commission, Docket No. G-200	16705	7015
Order entered June 10, 1941 fixing date of Hearing in Federal Power Commission, Docket No. G-200	16715	7022
Order entered June 10, 1941 permitting the Michigan Public Service Commission to intervene in Federal Power Commission, Docket No. G-200	16718	7024
Petition of Panhandle Eastern Pipe Line Company filed June 26, 1941 for Continuance of Hearing in Docket No. G-200	16720	7025
Concurring Petition of Michigan Gas Transmission Corporation filed July 3, 1941 for Continuance of Hearing in Docket No. G-200	16728	7030

X77

Objection of City of Detroit and County of Wayne to Defendant's Petition for Continuance of Hearing filed July 3, 1941 in Docket No. G-200	16733	7032
Federal Power Commission's Designation of Trial Examiner	16736	7034
Order entered July 8, 1941 denying Petitions for Continuance of Hearing in Docket No. G-200	16737	7034
Petition of Michigan Consolidated Gas Company for Leave to intervene filed July 10, 1941 in Docket No. G-200	16739	7035
Petition of Intervention	16744	7038
Order entered July 12, 1941 permitting Michigan Consolidated Gas Company to intervene in Docket No. G-200	16755	7046
Answer of Michigan Gas Transmission Corporation to Petition of Intervenor, Michigan Consolidated Gas Company	16757	7047
Answer of Panhandle Eastern Pipe Line Company to Petition of Michigan Consolidated Gas Company, Intervenor, filed August 18, 1941 in Docket No. G-200	16762	7051
Motion to Dismiss filed by Panhandle Eastern Pipe Line Company on August 20, 1941 in Docket No. G-200	16771	7058
Motion to Dismiss filed by Michigan Gas Transmission Corporation on August 21, 1941 in Docket No. G-200	16773	7059
Order of Federal Power Commission denying Motions to Dismiss of Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Corporation	16775	7060
Order of Federal Power Commission entered May 22, 1941 instituting Investigation in Docket No. G-207	16776	7061
Order of Federal Power Commission entered September 2, 1941 consolidating Proceedings for Purposes of Hearing, Dockets Nos. G-200 and G-207	16779	7064
Petition of Panhandle Eastern Pipe Line Company filed February 4, 1942 for Continuance of Hearing	16799	7065
Objection of City of Detroit and County of Wayne filed February 11, 1942 to petition for Continuance of Hearing	16809	7070
Order of Federal Power Commission entered February 17, 1942 denying Petition for Continuance and Changing Place of Hearing in Dockets Nos. G-200 and G-207	16811	7072
Petition for Continuance of Hearing filed by Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Corporation on February 28, 1942	16814	7073
Exhibit A, Limitation Order L-31 to curtail Consumption of Natural Gas	16823	7079
Exhibit A, Areas subject to Prohibitions contained in Paragraph (e) of Limitation Order L-31	16828	7084
Order of Federal Power Commission entered March 26, 1942 enlarging Investigation and making Illinois Natural Gas Company a Party Respondent in Proceeding Designated Docket No. G-207	16834	7088
Motion of Counsel for Federal Power Commission filed April 27, 1942 praying that the Federal Power Commission enter an immediate Order fixing just and reasonable Rates	16839	7091
Motion filed by Michigan Consolidated Gas Company on April 27, 1942 praying that the Federal Power Commission enter an immediate Order reducing Rates	16849	7098

Motion filed by City of Detroit and County of Wayne on April 27, 1942 praying that the Federal Power Commission enter an immediate Order reducing Rates	16853	7100
Amendment to Motion for Order reducing Rates filed by Michigan Consolidated Gas Company on April 28, 1942	16860	7104
Statement relating to Excess Return for year 1941 and Reduction of Gross Revenues required to eliminate Excess Return	16865	7107
Excess Return for year 1941, before Adjustment of Claim for Replacements	16866	7107
Rate Base for year 1941	16867	7109
Income Statement — year 1941	16868	7111
Amortization of Investment	16871	7114
Annual Accrual Rate for Amortization of Property as of June 30, 1941	16872	7115
Annual Accrual for Amortization of Property at June 30, 1941	16873	7116
Depletion	16874	7116
Excess Return for year 1941	16875	7117
Rate Base for year 1941	16876	7118
Income Statement — year 1941	16877	7119
Adjustments to 1941 Income Statement for Changes in Operating Expenses not fully effective for Entire Calendar year 1941	16878	7121
Stipulation of Counsel for the various Parties and Federal Power Commission Counsel consenting to withdrawal of Federal Power Commission Counsel's Motion for Immediate Order reducing Rates filed May 11, 1942	16881	7123
Motion of Counsel for Federal Power Commission for Immediate Order reducing Rates filed on May 11, 1942	16882	7125
Opinion Number 80 of Federal Power Commission, Memorandum as to Order of Federal Power Commission reducing Rates, September 23, 1942, Memorandum as to	16892	7133
Petition of Panhandle Eastern Pipe Line Company, Michigan Gas Transmission Corporation and Illinois Natural Gas Company filed October 9, 1942 requesting an extension of time within which to file new Schedules of Rates and Charges	16934	7134
Order of Federal Power Commission of October 12, 1942 granting Extensions of Time to Panhandle Eastern Pipe Line Company, Michigan Gas Transmission Corporation and Illinois Natural Gas Company to file new Schedules of Rates and Charges	16938	7137
Petition of Panhandle Eastern Pipe Line Company, Michigan Gas Transmission Corporation and Illinois Natural Gas Company filed October 23, 1942 for stay of the Federal Power Commission's order of September 23, 1942	16940	7138
Petition of Panhandle Eastern Pipe Line Company, Michigan Gas Transmission Corporation and Illinois Natural Gas Company filed October 23, 1942 requesting a rehearing in Dockets Nos. G-200 and G-207	16944	7141
Order of Federal Power Commission of October 30, 1942 denying Petitions for Rehearing and for Stay in Dockets Nos. G-200 and G-207	16954	7150

	Original	Print
Certificate to Transcript of Federal Power Commission	16955	7151
Order of United States Circuit Court of Appeals directing Respondents to Show Cause why Petition for Stay of Rate Order should not be granted	16986	7179
Order of United States Circuit Court of Appeals denying Petition for Stay of Operation of Rate Order without prejudice, etc.	16987	7180
Order of United States Circuit Court of Appeals granting Stay pending further hearing of application therefor	16988	7181
Order of United States Circuit Court of Appeals granting Stay of Order of Federal Power Commission dated September 23, 1942, requiring reduction in rates and charges for gas furnished by Petitioners, etc.	16989	7182
Order of United States Circuit Court of Appeals appointing John G. Hughes as Custodian of Funds to be impounded under provisions of Stay Order	16991	7184
Order of United States Circuit Court of Appeals as to form of record to be printed and fixing time for filing designations therefor	16992	7185
Order of United States Circuit Court of Appeals instructing Custodian as to manner of handling funds and securities in his possession	16993	7186
Order of United States Circuit Court of Appeals authorizing Custodian to purchase certain securities as investments	16995	7187
Order of United States Circuit Court of Appeals directing Petitioners to pay to Custodian certain sums to cover Bond premium, etc.	16997	7188
Order of United States Circuit Court of Appeals requiring Custodian to set up Account No. 1 and Account No. 2, etc.	16999	7189
Order of United States Circuit Court of Appeals authorizing Custodian to purchase certain securities, etc.	17001	7190
Stipulation that coloring matter appearing on certain Exhibits may be omitted from copies inserted in printed record, etc.	17003	7191
Appearances of Counsel for Petitioners	7193	7193
Appearances of Counsel for Respondents	7195	7194
Order of Submission	7199	7196
Order for Resubmission of Case	7200	7196
Order resetting case for argument	7201	7197
Order of Resubmission	7202	7197
Opinion, U. S. Circuit Court of Appeals	7203	7198
Judgment, U. S. Circuit Court of Appeals	7226	7219
Clerk's Certificate to Transcript	7228	7220
Order allowing certiorari	7230	7221

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Pleas and proceedings in the United States Circuit Court of Appeals for the Eighth Circuit, at the May Term, 1944, of said Court, before the Honorable John B. Sanborn, the Honorable Joseph W. Woodrough and the Honorable Walter G. Riddick, Circuit Judges.

Attest:

E. E. KOCH,

Clerk of the United States Circuit Court of Appeals for the Eighth Circuit.

(Seal)

Be it Remembered that heretofore, to-wit: on the 6th day of February, A. D. 1943, a transcript of record on Petition to Review and Set Aside Order of Federal Power Commission was filed in the office of the Clerk of the United States Circuit Court of Appeals for the Eighth Circuit, in a certain matter wherein Panhandle Eastern Pipe Line Company, a Corporation, et al., were Petitioners, and the Federal Power Commission, et al., were Respondents, which said transcript as prepared and printed, pursuant to designations, under the rules of the United States Circuit Court of Appeals for the Eighth Circuit, under the supervision of its Clerk, is in the words and figures following, to-wit:

[fol. a] Petition of Panhandle Eastern Pipe Line Company,  
Illinois Natural Gas Company, and Michigan Gas  
Transmission Corporation to Review and Set Aside  
An Order of the Federal Power Commission.

(Filed in U. S. Circuit Court of Appeals on November 18,  
1942.)

In the United States Circuit Court of Appeals for the  
Eighth Circuit.

Panhandle Eastern Pipe Line Company, a Corporation,  
Illinois Natural Gas Company, a Corporation, and  
Michigan Gas Transmission Corporation, a Cor-  
poration, Petitioners,

No. 12466. vs.

Federal Power Commission, City of Detroit, Michigan,  
County of Wayne, Michigan, Michigan Consolidated  
Gas Company, a Corporation, and Michigan Public  
Service Commission, Respondents.

To the United States Circuit Court of Appeals for the  
Eighth Circuit and the Honorable Judges Thereof:

Panhandle Eastern Pipe Line Company, a Delaware  
corporation (herein sometimes referred to as Panhandle  
Eastern), Illinois Natural Gas Company, an Illinois cor-  
[fol. b] poration (herein sometimes referred to as Illinois  
Natural), and Michigan Gas Transmission Corporation, a  
Delaware corporation (herein sometimes referred to as  
Michigan Gas), herein collectively referred to as Peti-  
tioners, being aggrieved by an Order of the Federal Power  
Commission (herein sometimes referred to as the Com-  
mission) dated September 23, 1942, as amended October  
12, 1942, respectfully petition this Honorable Court to re-  
view and set aside said Order.

In support of their petition they respectfully represent:

A.

The Nature of the Proceedings As to Which Review Is Sought.

(a) The Order of the Commission which Petitioners now seek to have reviewed and set aside was entered after a hearing in two consolidated proceedings brought against petitioners. These proceedings were entitled and docketed before the Commission as follows: "City of Detroit, Michigan, and County of Wayne, Michigan, vs. Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Corporation, Docket No. G-200," and "In The Matter of Panhandle Eastern Pipe Line Company, Michigan Gas Transmission Corporation, and Illinois Natural Gas Company, Docket No. G-207."

The proceedings were instituted and the Order was made purportedly under the authority of and in accordance with the terms of an act of Congress known as The Natural Gas Act (Act of June 21, 1938, Ch. 556, 22 Stat. 824, Title 45, U. S. C. A. 717).

(b) Case No. G-200 was instituted February 28, 1941, by the filing of a complaint by the City of Detroit, Michigan, and the County of Wayne, Michigan, against Petitioners, Panhandle Eastern and Michigan Gas. In said complaint it was alleged that the rates and charges paid [fol. c] by Panhandle Eastern to Michigan Gas (which latter Company, for a carrying charge paid by Panhandle Eastern, transports gas from Panhandle Eastern's pipeline to its distributor customer, Michigan Consolidated Gas Company, and other customers) were excessive, and that the rates and charges demanded and collected by Panhandle Eastern from said Michigan Consolidated Gas Company were unjust, unreasonable and unduly discriminatory. The prayer of the complaint was that the Commission, after investigation, fix and determine the just and reasonable rates to be thereafter observed and enforced in respect to such transportation and sale of natural gas for resale in said city of Detroit and in said County of Wayne.

Answers were filed by Michigan Gas on March 28, 1941, and by Panhandle Eastern on April 3, 1941, in which it

was denied that the rates complained of were excessive, unjust, unreasonable or discriminatory. Permission to intervene in said proceeding was granted to Michigan Public Service Commission (a State regulatory body having jurisdiction of the rates of Michigan Consolidated and other Michigan utilities) on June 10, 1941, and to Michigan Consolidated on July 12, 1941.

(c) Docket No. G-207 was a proceeding instituted by the Commission on its own motion against Panhandle Eastern and Michigan Gas by way of an investigation for the purpose of enabling the Commission

(1)

To determine with respect to each of said companies (a) whether it is a natural gas company within the meaning of the Natural Gas Act, and (b) whether in connection with any transportation or sale of natural gas subject to the jurisdiction of the Commission, any rates, charges or classifications demanded, observed, charged or collected, or any contracts affecting such rates, charges, or classifications, are unjust, unreasonable, unduly discriminatory or preferential; and

[fol. d]

(2)

If the Commission, after hearing, should find that Panhandle Eastern or Michigan Gas is a natural gas company within the meaning of the Natural Gas Act, and that any of their rates, charges, classifications, rules, regulations, practices or contracts, subject to the jurisdiction of the Commission, are unjust, unreasonable, unduly discriminatory or preferential, to determine and fix by appropriate order or orders, just and reasonable rates, charges, classifications, rules, regulations, practices, or contracts to be thereafter observed and in force.

On March 26, 1942, during the hearings hereinafter referred to, Illinois Natural was, by agreement, made party to the proceedings in Docket G-207.

(d) On July 15, 1941, hearings were commenced under Docket No. G-200 before Hon. Samuel H. Crosby, Trial Examiner for the Commission. During those hearings, on September 2, 1941, Dockets Nos. G-200 and G-207 were

consolidated, and thereafter the hearings continued in the consolidated causes from time to time, until April 23, 1942. These hearings occupied eighty-four hearing days, during which oral testimony (comprising 10,774 pages), two hundred sixty-seven exhibits, and other documentary evidence were introduced.

(e) On April 23, 1942, motions were filed by Commission Counsel, and by Counsel for the City of Detroit, the County of Wayne, and Intervener, Michigan Consolidated, seeking an immediate or interim order of the Commission directing a reduction of Petitioners' rates pending further hearings and investigation. Upon such motions being filed, the examiner adjourned the hearings and directed the filing by all parties of briefs, addressed to such motions. Briefs of all parties were filed on or prior to June 1, 1942.

(f) On September 28th, 1942, the Commission served on your petitioners its final interim rate order in said consolidated dockets, but keeping the record in said causes open for such further proceedings as the Commission may deem necessary or advisable. Said order bears the date September 23, 1942, and was issued pursuant to its Opinion No. 80. A copy of such Opinion No. 80 and the order issued pursuant thereto is hereto attached, marked Exhibit A, and by reference made a part hereof.

In said Order the Commission, without a specific finding as to the reasonableness of any specific rate, but solely because it found that Petitioners' net earnings during 1941 exceeded a 6½% return on the rate base found by it to be reasonable, purported to find Petitioners' rates and charges in connection with their transportation and sale of natural gas in interstate commerce for ultimate public consumption to be unjust, unreasonable and excessive, and directed that Petitioners' rates and charges for or in connection with their transportation and sale of natural gas in interstate commerce for resale for ultimate public consumption be so reduced as to reflect, when applied to their 1941 transportation and sales, a reduction of \$5,094,384 per annum below their 1941 consolidated gross operating revenues of \$17,789,573.

Said Order further required that on or before October 15, 1942, Petitioners file new schedules of rates and charges

for or in connection with their transportation and sale of natural gas in interstate commerce for resale for ultimate public consumption which shall reflect such reduction of \$5,094,384 below 1941 consolidated gross operating revenues; and that such new schedules of rates and charges shall be effective as to all bills regularly rendered on or after November 1, 1942.

On October 12, 1942, the Commission issued its order extending the time for filing new schedules of rates and charges required by said Order of September 23, 1942, to be filed by October 15, 1942, to November 10, 1942; but provided therein that such extension of time should not operate as a change of the date on which the new schedule of rates and charges should be effective, namely, November 1, 1942, and that nothing in said order should be construed as staying the time within which Petitioners shall file a petition for rehearing or a petition for review as provided in Section 19 of the Natural Gas Act. A copy of said Order is attached hereto, marked Exhibit B, and by reference made a part hereof.

(g) Within thirty days from the date of said Opinion No. 80 and the order of the Commission issued pursuant thereto, to-wit, on October 23, 1942, Petitioners did file with the Commission, in strict accord with the rules of the Commission and Section 19 of the Natural Gas Act, their joint Petition for Rehearing and Reconsideration by the Commission of its said order of September 23, 1942, issued pursuant to said Opinion No. 80. In that petition complaint is made of certain rulings by the Commission's Examiner in the course of the hearing of evidence, and to certain rulings, holdings and findings in the memorandum opinion upon which said order is based, and in the order itself; and complaint is also made of the failure of the Commission in said order to make certain rulings, holdings and findings. The rulings, holdings and findings concerning which complaint is made are set out in Specifications of Error incorporated in said petition.

(h) On October 30, 1942, the Commission denied your Petitioners' Petition for Rehearing and Reconsideration. Petitioners have, therefore, exhausted all their administrative and procedural remedies before the Commission.



## B.

The Facts and Statute Upon Which Venue Is Based.

(a) The statute upon which venue and jurisdiction in this case is based is Section 19(b) of the Natural Gas Act; Act of June 21, 1938, Ch. 556, 52 Stat. 833; Title 15, U. S. C. A., Section 717 r (b), the pertinent part of which reads:

[fol. g] "Any party to a proceeding under this chapter aggrieved by an order issued by the Commission in such proceeding may obtain a review of such order in the circuit court of appeals of the United States for any circuit wherein the natural-gas company to which the order relates is located or has its principal place of business. . . ."

(b) Panhandle Eastern is a corporation organized and existing under the laws of the State of Delaware, Illinois Natural is a corporation organized and existing under the laws of the State of Illinois, and Michigan Gas is a corporation organized and existing under the laws of the State of Delaware. Each of petitioners is a natural-gas company within the contemplation of said Natural Gas Act. Illinois Natural and Michigan Gas are both wholly owned subsidiaries of Panhandle Eastern. Each of Petitioners has its principal place of business in Kansas City, Jackson County, Missouri, within the jurisdiction of the Eighth Circuit Court of Appeals. Petitioners together constitute a pipeline production transmission and marketing system owning large gas reserves in the states of Texas, Oklahoma, and Kansas, and a pipeline with appropriate lateral lines connecting those reserves with markets in Texas, Kansas, Missouri, Illinois, Indiana, Ohio, and Michigan. A substantial portion of the transmission facilities lie within the territory over which this Court has jurisdiction.

## C.

The Points on Which the Petitioners Intend to Rely.

In this Review proceeding, Petitioners intend to rely upon each and all of the Points hereinafter set forth, all of which were urged by Petitioners as specifications of error in their Petition for Rehearing filed with the Commission.

To avoid unnecessary repetition, Petitioners assert that each of the errors hereinafter specifically assigned under [fol. b] the following Points operates to confiscate and take Petitioners' property without just compensation, and to deprive Petitioners of such property without due process of law; contrary to the Fifth Amendment to the Constitution of the United States; that none of the Findings and Conclusions challenged is based upon substantial evidence as required by the Natural Gas Act, and each is contrary to the evidence; and that because of the errors complained of in said respective Points, Petitioners have not been given such a fair hearing as is contemplated by the Natural Gas Act and the provisions of the Fifth Amendment to the Constitution of the United States; and, by virtue of such errors, the Commission's order, as applied to the facts before it and viewed in its entirety, produces an arbitrary result.

#### First Point.

The Examiner for the Commission erred in refusing to admit in evidence Exhibits 39, 39-A, 62, 83 and 84, showing the reproduction cost of Petitioners' physical properties and the present value of such properties as evidenced by the reproduction cost new of such properties less observed depreciation thereof; such evidence being admissible for consideration in determining both the fair value of such properties and the return to which Petitioners are justly and [reasonable] entitled.

#### Second Point.

The Examiner for the Commission erred in refusing to admit in evidence Exhibit 71 and Pages 17, 20, 21, 22 and 32, of Exhibit 75, showing the value of the properties of Panhandle Eastern at the approximate date of the enactment of the Natural Gas Act; such value, when considered in connection with subsequent additions and allowances for depreciation being appropriate for consideration by the Commission in determining both the fair value of Petitioners' properties and the return to which Petitioners are justly and reasonably entitled.

[fol. i]

#### Third Point.

The Examiner for the Commission erred in refusing to admit in evidence Exhibits 37 and 37-A, and the testimony

explanatory thereof, showing the present value of the gas leasehold estates owned by Panhandle Eastern, based on the prices at which said gas leaseholds could now be sold, whether the production therefrom be sold by the purchaser in a regulated or in an unregulated market; such evidence being appropriate for consideration by the Commission in determining both the fair value of Petitioners' properties and the return to which Petitioners are justly and reasonably entitled.

#### Fourth Point.

The Commission erred in refusing to include in the rate base the value of the property represented by "Construction Work in Progress" on December 31, 1941, February 28, 1942, or March 31, 1942, the evidence clearly showing that the property reflected in such accounts represented actual cost to Petitioners as of those respective dates.

#### Fifth Point.

The Commission erred in refusing to include in the rate base Petitioners' property represented by the increase in "Gas Plant Classified" from December 31, 1941, to March 31, 1942, since such increase represented actual cost to Petitioners.

#### Sixth Point.

The Commission erred in refusing to include in the rate base the property represented by additional capital expenditures which, at the time hearings were suspended, were covered by current budgets, were in course of construction, and expected to be completed by the end of 1942, since the evidence clearly showed that the expenditures would be made, and that funds were on hand to make the required payments.

[fol. j]

#### Seventh Point.

The Commission erred in failing to consider, in determining either the rate base or the appropriate return, the cost of carrying unused capacity until its use was required, since it was not shown that during the period 1932 to 1937 the earnings of Petitioner Panhandle Eastern constituted a reasonable return on its invested capital or that such cost was thereafter recouped from excessive earnings.

### Eighth Point.

The Commission erred in finding that the failure of Petitioner Panhandle Eastern fully to utilize its capacity during the development period 1932 to 1937 was because of the restraint of its holding company because

(1). There is no evidence of probative value sufficient to justify the finding.

(2) The amount of revenues, if any, lost to the company, as a result of such restraint, if any there was, is not made to appear.

(3) There is no evidence to support the finding that customers along the line were clamoring for service.

### Ninth Point.

The Commission erred in refusing to include in the rate base the unamortized portion (\$251,505) of the item of \$654,989 included in "old gas sales and purchase contracts" which concededly reflects cost to Panhandle Eastern.

### Tenth Point.

The Commission erred in refusing to accept as the rate base Petitioners' "Prudent Investment" represented by its invested capital, adjusted by a reduction therefrom of the unamortized portion of the item representing the contracts acquired by Panhandle Eastern from Missouri [fol. k] Kansas Pipe Line Company, originally for \$2,398,402, the only item reflected in the invested capital as to which any question has been raised relating to cost to Panhandle Eastern.

### Eleventh Point.

The Commission erred in failing to adopt at least Petitioners' Invested Capital (less the unamortized portion of the old gas sales and purchase contracts) as of March 31, 1942, in the sum of \$76,563,961, as the appropriate rate basis and the cost of service thereof, \$5,173,686 as the return to which Petitioners are entitled—a "rate of return" of 6.75% on the invested capital.

### Twelfth Point.

The Commission erred in failing to adopt at least Petitioners' Pro Forma Invested Capital (less the unamor-

tized portion of the old gas sales and purchase contracts) as of December 31, 1941, in the sum of \$75,738,202, as the rate base, and the cost of service thereof, \$5,074,292, as the return to which Petitioners are entitled—a rate of return of 6.69% on such invested capital.

#### Thirteenth Point.

The Commission erred in finding that 6½% is a fair return upon the rate base allowed because there is no evidence of probative value to support that finding.

#### Fourteenth Point.

The Commission erred in finding that \$4,363,925 constitutes a reasonable return to Petitioners because there is no evidence of probative value showing that such amount is a fair and reasonable return on either Petitioners' invested capital, or the fair value of their property.

[fol. 1]

#### Fifteenth Point.

The Commission erred in finding that \$4,363,925 constitutes a reasonable return to Petitioners since there is no evidence of probative value showing that such sum reflects the "cost of service" as that term is used in applying the prudent investment doctrine of regulation, no evidence of probative value that such sum will be adequate to attract capital to the enterprise, or be adequate to enable Petitioners to maintain and support their credit, and enable them to raise the money necessary for the discharge of their public duties; and such finding is against the uncontradicted evidence showing that such sum will not be adequate for those purposes.

#### Sixteenth Point.

The Commission erred in using Petitioners' 1941 experience as a test period without

(a) Adjusting same so as to deduct from receipts the amounts received (\$980,000) from increased sales to purchasers engaged in war work, such sales not being normal.

(b) Increasing operating expenses in the sum of \$73,500 resulting from payroll increases not incident to increases in revenues, required in 1942 and subsequent years, and not fully reflected in 1941 operating expenses.



(c) Increasing operating expenses by the sum of \$221,500, not fully reflected in 1941 operating expenses, required for emergency property protection as a result of the war (which emergency expense should be considered if the abnormal receipts are considered).

(d) Increasing operating expenses by the sum of \$30,000 representing increased cost of Employees' Welfare and Pension Expense resulting from the employees of Michigan Gas becoming employees of the Panshandle Eastern System, and thereby being entitled to participate in such benefits.

[fol. m] (e) Increasing operating expenses by the sum of \$70,000 representing a reasonable annual charge for amortizing in five years the expense of the proceedings.

(f) Increasing operating expenses by the sum of \$.... so as to take care of increased Federal Income Excess Profits Taxes required by the 1942 Act.

#### Seventeenth Point.

The Commission erred in the assumption that future increases in net revenues will equal the increases in expenses since there is no evidence of probative value to sustain such assumption.

#### Eighteenth Point.

The Commission erred in taking into consideration the possibility that Petitioners' lines may for a time be operated at a 90% capacity factor without also taking into consideration the additional capital expenditures which will be required to permit such operation more than a few months, and the increased unit production cost resulting therefrom.

#### Nineteenth Point.

The Commission erred in holding that increased tax burdens must be borne by a regulated utility, and are not to be allowed for in the fixing of Petitioners' rates.

#### Twentieth Point.

The Commission erred in failing reasonably to allocate Petitioners' earnings between regulated and unregulated sales, and in taking Petitioners' direct sales into consid-



eration in determining the amounts of Petitioners' profits, and then directing that the excess return so determined be reduced through a reduction of the prices and charges for gas sold for resale; thereby assuming jurisdiction over Petitioners' direct sales.

[fol. n]                      Twenty First Point.

The Commission erred in requiring a reduction of Petitioners' rates and charges so as to reflect, when applied to their 1941 transportation and sales, a reduction of not less than \$5,094,384 below their 1941 consolidated gross operating revenue; thus taking from Petitioners a large portion of their required cost of service.

#### D.

The record in this case, as already shown, contains 10,774 pages and two hundred sixty-seven Exhibits, some of which are rather lengthy. Counsel for Petitioners are now preparing a narrative statement of the record, and it may be possible for the parties to stipulate as to the corrections thereof, and as to what portions of the transcript or the narrative should be printed. Whether such stipulation is reached or not, it will not be reasonably feasible for Petitioners after the filing of the transcript in this Court, within the time required by the rules of this Court, to prepare and serve upon all other parties and file with the Court a designation of the portions of the transcript to be contained in the printed record, and a reasonable time should be allowed for such designation and service and filing thereof.

Wherefore, Petitioners pray:

1. That a copy of this Petition forthwith be served upon some member of Respondent, Federal Power Commission, in pursuance of Section 19 (b) of the Natural Gas Act (Act of June 21, 1938, Ch. 556, 52 Stat. 833; Section 717 r. (b), Title 15, U. S. C. A.), and that all parties respondent herein be served with a copy of said Petition, as provided by the Rules of this Court.

2. That Respondent, Federal Power Commission, be required, in conformity with said Act, to certify and file with the Court a transcript of the record upon which the Order now sought to be reviewed was entered, including

[fol. o] the testimony, evidence, exhibits, pleadings, opinions, findings, conclusions and orders of said Respondent in the two dockets above referred to.

3. That pursuant to the rules of this Court Petitioners be notified by the Clerk when said transcript has been received and that an order be entered herein allowing Petitioners a reasonable time from the date of such notice within which to prepare the portion of the transcript to be contained in the printed record, unless, in the meantime, the parties have stipulated as to what portions of the transcript shall be printed.

4. That this Court review the Order of the Respondent, Federal Power Commission, of September 23, 1942, and the findings and opinion of the Commission upon which the same is based and which are incorporated therein, as supplemented by the order of said Commission dated October 12, 1942, and the order of the Commission denying Petitioners' Petition for Rehearing filed with the Commission, and upon such review reverse, vacate, set aside, and hold said Order for naught.

5. That this Court exercise its jurisdiction over the parties and subject matter of this Petition and grant to Petitioners such other and further relief in the premises as the rights and equities of the cause may require.

PANHANDLE EASTERN PIPE  
LINE COMPANY,

ILLINOIS NATURAL GAS  
COMPANY,

MICHIGAN GAS TRANSMISSION  
CORPORATION,

By J. D. Creveling, President,  
1221 Baltimore Avenue,  
Kansas City, Missouri.

GLENN W. CLARK,  
1221 Baltimore Avenue,  
Kansas City, Missouri.

D. H. CULTON,  
Oliver Eakle Building,  
Amarillo, Texas,  
Attorneys for Petitioners.

[fol. p] State of Missouri,  
County of Jackson.

J. D. Creveling, being duly sworn, on oath deposes and says:

That he is the President of Panhandle Eastern Pipe Line Company, Illinois Natural Gas Company, and Michigan Gas Transmission Corporation, the Petitioners in the above Petition named; that he has read the above and foregoing Petition and knows the contents thereof, and that the matters and things therein stated are true, as he verily believes.

J. D. CREVELING.

Subscribed and Sworn to before me this 17th day of November, 1942.

(Seal)

MARY C. MAGERS,  
Notary Public,  
Jackson County, Missouri.

My commission expires August 31, 1943.

[fol. q]

Exhibit A.

United States of America.  
Federal Power Commission

Opinion No. 80

City of Detroit, Michigan,

and

County of Wayne, Michigan,

Docket No. G-200. vs.

Panhandle Eastern Pipe Line Company,

and

Michigan Gas Transmission Corporation.

In the Matter of

Panhandle Eastern Pipe Line Company,

Michigan Gas Transmission Corporation,

and

Illinois Natural Gas Company

Docket No. G-207.

### Appearances.

For the City of Detroit, Michigan:

Paul E. Krause, Esq., James H. Lee, Esq.

For the County of Wayne, Michigan:

William E. Dowling, Esq., Harold Goodman, Esq.

For the Respondents:

Glenn W. Clark, Esq., D. H. Culton, Esq., Robert E. May, Esq., Carl I. Wheat, Esq.

[fol. r] For Respondent Michigan Gas Transmission Corporation:

Milton C. Baldridge, Esq., Charles S. Porritt, Esq.

For the Michigan Public Service Commission:

James W. Williams, Esq.

For the Michigan Consolidated Gas Company:

Park Chamberlain, Esq., Henry A. Montgomery, Esq., A. V. McRee, Esq.

For the Federal Power Commission:

Harry S. Littman, Esq.

### Opinion.

Scott, Commissioner:

"The issues now before us in these proceedings are raised by motions for an immediate order reducing natural gas rates pending further investigation.

On February 28, 1941, the City of Detroit and the County of Wayne, Michigan, filed a petition with this Commission alleging that the rates and charges of Panhandle Eastern Pipe Line Company<sup>1</sup> and Michigan Gas Transmission Corporation<sup>2</sup> for natural gas sold to Michigan Consolidated Gas Company<sup>3</sup> for resale in that city and county are unjust, unreasonable and unduly discriminatory. On May 22, 1941, the Commission, on its own motion, instituted an investigation of all the interstate wholesale natural gas rates and charges of Panhandle Eastern and Michigan Gas. The two proceedings were consolidated for purposes of hearing. The Michigan Public Service Commission and

<sup>1</sup>Hereinafter referred to as "Panhandle Eastern."

<sup>2</sup>Hereinafter referred to as "Michigan Gas."

<sup>3</sup>Hereinafter referred to as "Michigan Consolidated."

Michigan Consolidated were permitted to intervene. On March 26, 1942, the Commission enlarged the investigation [fol. s] to include the Illinois Natural Gas Company.<sup>4</sup>

Hearings were begun on July 15, 1941, and continued thereafter from time to time through 84 days until April 23, 1942, when our Trial Examiner adjourned the hearings pending disposition by the Commission of the pending motions for an immediate order reducing rates filed by the Complainants, Michigan Consolidated and counsel for this Commission. The record comprises 10,774 pages of transcript of the proceedings and 267 exhibits, consisting largely of the respondents' presentation on direct, cross-examination thereon, and rebuttal evidence.

The complainants offered one witness in support of their petition. The respondents offered 24 witnesses who presented a complete rate case including, among other matters, evidence of operations, revenues, expenses, book cost and original cost of their properties, "going concern value," working capital, gas reserves, depreciation, rate of return, future capital expenditures and allocation of costs. Counsel for the Commission called 5 witnesses whose testimony related principally to depreciation, a write-up, historical earnings on average net investment, working capital, rate of return, and allocation of costs. The interveners presented no witnesses. The witnesses were tendered to all parties for cross-examination and full opportunity was given to present rebuttal evidence. Exhaustive briefs have been filed by the parties fully arguing the issues raised by the motions.

The complainants contend that the respondents' rates should immediately be reduced by \$6,800,479 per annum; Commission counsel seeks a reduction of [a] least \$5,580,887; and Michigan Consolidated urges a reduction of \$5,489,874. The respondents deny that their rates and charges are unjust and contend that the motions should be denied.

[fol. t] Jurisdiction.

No question has been raised concerning the Commission's jurisdiction over the respondents' rates and charges

<sup>4</sup>Hereinafter referred to as "Illinois Natural."

<sup>5</sup>Panhandle Eastern, Michigan Gas and Illinois Natural are hereinafter sometimes referred to collectively as the "respondents."

for the transportation and sale in interstate commerce of natural gas for resale, and the respondents admit that they are "natural-gas companies" within the purview of the Natural Gas Act.

#### Authority for Interim Order.

It has been clearly established by the Supreme Court of the United States in the *Natural Gas Pipeline Company of America* case<sup>6</sup> that this Commission may, upon a proper record, enter an interim order in rate proceedings under the Natural Gas Act.

In the instant proceedings respondents have been given full opportunity to present all the evidence they desired, to adduce, and to cross-examine the witnesses offered by the complainants and Commission's counsel. Indeed, respondents' counsel, stated at the conclusion of all the testimony now contained in the record that they had no further evidence to offer, and that they had not been denied the opportunity to present additional testimony. In their brief, respondents' counsel state that full and complete evidence has been presented dealing with those elements which this Commission has heretofore deemed appropriate for consideration in proceedings such as these. The record is voluminous and comprehensive, touching those matters usually deemed relevant in the rate-making process. It cannot be gainsaid that the respondents have had a full and complete hearing. Thus, it appears that the record is ripe for a determination of the substantive aspects of the problem posed by the motions.

#### [fol. u] Ownership, Control and Description of Respondents' System.

The respondent, Panhandle Eastern, a Delaware Corporation, has outstanding 807,367 shares of common stock owned beneficially as follows: 404,326 shares (50.1%) by Columbia Oil & Gasoline Corporation, a subsidiary of Columbia Gas & Electric Corporation; 339,475 shares (42%) by Missouri-Kansas Pipe Line Company; and 63,566 shares

<sup>6</sup>Federal Power Commission, et al., vs. Natural Gas Pipeline Company of America, et al., 315 U. S. ....; 62 S. Ct. 736.



by the public. All the outstanding securities of respondent, Michigan Gas, a Delaware corporation, and respondent, Illinois Natural, an Illinois corporation, are owned by Panhandle Eastern. The respondents are operated as a single system for the production, gathering, transportation and sale in interstate commerce of natural gas, principally for resale, and it is not controverted that the separate corporate entities may be disregarded.

Panhandle Eastern produces, purchases and gathers natural gas in the Amarillo field of the Texas Panhandle and in the Hugoton field in southwestern Kansas. This gas is transported to markets along Panhandle Eastern's main transmission-line which extends for a distance of about 860 miles from a point in Moore County, in the Texas Panhandle, through the States of Oklahoma, Kansas, Missouri and Illinois, to a point near Dana, Indiana, adjacent to the Illinois-Indiana boundary. At this point, gas is delivered into the main transmission line of Michigan Gas, which extends from Dana, Indiana, to a point near Zionsville, Indiana, where the line branches to Detroit, Michigan, and to Muncie, Indiana. Through these facilities of Michigan Gas, the gas is marketed in Indiana, Ohio, and Michigan. Illinois Natural owns numerous lateral lines extending from Panhandle Eastern's main line in Illinois, and serves numerous customers in that State. Panhandle Eastern also owns a small section of pipe line, recently acquired from The Ohio Fuel Gas Company, connected to the lines of Michigan Gas and used to serve certain communities in Indiana and Ohio. Together, these lines constitute the longest natural-gas pipe line in the world, serving more than 200 cities, towns and communities with more than 700,000 retail customers in Texas, Kansas, Missouri, Illinois, Indiana, Michigan and Ohio.

#### The Rate Base.

**Evidence of Reproduction Cost Excluded.** The record before us raises the question of the necessity, under the Natural Gas Act, for considering evidence of the reproduction cost of respondents' property. Upon objection of Commission counsel, such evidence was excluded by the Trial Examiner.

Section 6(a) of the Natural Gas Act provides:

"Sec. 6(a) The Commission may investigate and ascertain the actual legitimate cost of the property of every natural-gas company, the depreciation therein, and, when found necessary for rate-making purposes, other facts which bear on the determination of such cost or depreciation and the fair value of such property."

It is obvious from an examination of the record that there is no need to estimate the cost of the respondents' properties. The cost records are complete and maintained in accordance with recognized accounting practice. The respondents assert that their books accurately reflect the original cost of the properties. The plant has been built within recent years, construction having begun in 1930.<sup>7</sup>

[fol. w] There is, therefore, no difficulty whatever in ascertaining promptly and accurately from respondents' books the actual legitimate cost of or the investment in their property.

We held in the Chicago District Electric Generating case<sup>8</sup> that under Section 208(a) of the Federal Power Act (the provisions of which are identical with Section 6(a), supra) that reproduction cost evidence is inherently fallacious and should be disregarded under that statute.

It is not deemed necessary to discuss at great length the defects and vagaries of reproduction cost evidence. The manifold reasons why such evidence is fallacious, and is

<sup>7</sup>The books show the gas plant classified of Panhandle Eastern and Illinois Natural, combined, at the end of each of the years 1930-1941 as:

|                     |                     |
|---------------------|---------------------|
| 1930 - \$ 7,571,851 | 1936 - \$46,387,074 |
| 1931 - 41,815,781   | 1937 - 58,071,907   |
| 1932 - 42,568,283   | 1938 - 58,751,335   |
| 1933 - 42,435,049   | 1939 - 59,226,065   |
| 1934 - 42,594,692   | 1940 - 64,380,428   |
| 1935 - 42,441,201   | 1941 - 65,226,927   |

and of Michigan Gas as:

|                     |                     |
|---------------------|---------------------|
| 1931 - \$ 2,340,353 | 1937 - \$ 9,226,241 |
| 1932 - 2,354,167    | 1938 - 9,260,047    |
| 1933 - 2,353,183    | 1939 - 9,812,436    |
| 1934 - 2,357,450    | 1940 - 12,295,897   |
| 1935 - 2,397,880    | 1941 - 12,804,341   |
| 1936 - 7,770,429    |                     |

<sup>8</sup>Re Chicago District Electric Generating Corp., 39 PUR (N. S.) 263.

obstructive of the regulatory process, have been fully expounded by members of the Supreme Court<sup>9</sup> and by this Commission.<sup>10</sup>

[fol. x] Moreover, in the light of the many expressions emanating from the highest court in the land, and the opinions of competent experts in the regulatory field, it seems evident that Congress recognized the fallacy of the reproduction cost doctrine and sought by the enactment of Section 6(a) to shelve that illusory concept as a requisite in rate making. Our view, that this was uppermost in the mind of Congress, is substantially concurred in by the Special Committee of the Public Utility Law Section of the American Bar Association in its report at the annual meeting of such association in September, 1940.<sup>11</sup> No less significant in this respect is the statement of the Supreme Court in the Natural Gas Pipeline Company of America case that:

"The Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas. Agencies to whom this legislative power has been

<sup>9</sup>See concurring opinion of Justice Black, Douglas and Murphy in Federal Power Commission, et al. vs. Natural Gas Pipeline Company of America, et al., 315 U. S. 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

<sup>10</sup>Re Chicago District Electric Generating Corp. case, supra; Re Canadian River Gas Co., et al., FPC Op. 73; Re Hope Natural Gas Co., FPC Op. 76; see brief for the United States Amicus Curiae, in which this Commission joined, case of Driscoll vs. Edison, 307 U. S. 104.

<sup>11</sup>This Committee in discussing Section 208 of the Federal Power Act and Section 6 of the Natural Gas Act concluded:

"It will be noted that the primary duty of the Commission under these two provisions is to ascertain the cost of the property and the depreciation thereon, and that other facts which bear on the determination of such cost or depreciation, and the fair value of such property are to be determined only when found necessary for rate making purposes. There is here the possible inference that the Congress, when it drafted this provision, was hopeful that the courts would decide that nothing other than the 'actual legitimate cost' of the property would be found necessary for rate making purposes. However that may be it is patent that an accounting or cost rate base was dominant in the Congressional mind, and that these very recent statutes in that respect are the very antithesis of some of the older state statutes which prescribe the reproduction cost new less depreciation formula."

delegated are free, within the ambit of their statutory authority, to make the pragmatic adjustments which may be called for by particular circumstances."

[fol. y] When such pronouncement is coupled with the assertion, in the separate concurring opinion, of Justices Black, Douglas and Murphy that:

"As we read the opinion of the Court, the Commission is now freed from the compulsion of admitting evidence on reproduction cost or of giving any weight to that element of 'fair value.' The Commission may now adopt, if it chooses, prudent investment as a rate base—the base long advocated by Mr. Justice Brandeis. And for the reasons stated by Mr. Justice Brandeis in the Southwestern Bell Telephone case there could be no constitutional objection if the Commission adhered to that formula and rejected all others"

any thought that reproduction cost evidence is any longer required in the rate-making process is substantially destroyed.

Having been authorized by the Congress to determine in the first instance the actual legitimate cost of utility properties and the depreciation therein, we conclude that the rate base is the actual legitimate cost of the property used and useful in furnishing the service, less the existing depreciation in such property, plus the working capital necessary to render such service. It is certain from the record that no necessity exists requiring the consideration of other facts in determining a rate base in these proceedings. It is, therefore, clear that the exclusion of reproduction cost evidence by the Trial Examiner was proper.

**The Actual Legitimate Cost.** The record clearly shows that the consolidated book cost of the plant in service at December 31, 1941, is \$79,986,407.<sup>12</sup> Respondents take the

<sup>12</sup>This gives effect to the acquisition by Panhandle Eastern on February 6, 1942, of Michigan Gas, Indiana Gas Distribution Corporation, and a section of pipe line purchased from The Ohio Fuel Gas Company. It also gives effect to the following deductions:

- (a) \$139,500 of inter-company profit eliminated by the respondents on their consolidated statements, but not recorded on the books, and
- (b) \$55,016 of "contributions in aid of construction."

Indiana Gas Distribution Corporation, hereinafter referred to as "Indiana Gas," a wholly-owned subsidiary of Panhandle Eastern, owns

position that their book cost and the actual legitimate cost [fol. z] are identical. The movants, for purposes of their motions, have accepted this sum as the actual cost of the properties, except for an item of \$1,172,115, the unamortized amount of "gas sales and purchase contracts," alleged to be a write-up.

The evidence shows that the partnership firm of Shippey, Maddin and Parish Gas Company originally secured these contracts at no cost, and thereafter transferred the same to its subsidiary, Missouri-Kansas Pipe Line Company, which company recorded them on its books at a purported value of \$1,105,000. On October 23, 1930, Panhandle Eastern acquired these contracts from Missouri-Kansas Pipe Line Company, then its parent, and recorded the same on its books at \$2,398,402. By December 31, 1941, this amount had been reduced through annual amortization charges to \$1,172,115. Since the record discloses that this unamortized balance of "gas sales and purchase contracts" represents a write-up (no property used and useful), it must be excluded in arriving at the actual legitimate cost of plant.

Panhandle Eastern is currently amortizing this write-up through charges to operating expenses at the rate of \$293,029 per year. Inasmuch as this write-up, if allowed, [fol. aa] would impose an unwarranted burden on the consumers, it is accordingly excluded from operating expenses.

The elimination from book cost of the said write-up of \$1,172,115 leaves \$78,814,292, which is accepted, for purposes of disposing of the problems presented by the motions before us, as the actual legitimate cost of the respond-

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and operates certain facilities in Indiana through which it serves approximately 1,800 customers with natural gas purchased from either Michigan Gas or Panhandle Eastern. Although the distribution facilities of this company are not subject to the jurisdiction of this Commission, it is undisputed that its properties, receipts and expenses are inconsequential in comparison with the whole of the respondents' system, and the parties have treated the same as an integral part of the respondents' interstate operations. We shall therefore include the operations of Indiana Gas as a part of the respondents' interstate business for purposes of disposing of the motions before us.



ents' property used and useful in furnishing gas service at December 31, 1941, as shown by the following tabulation:

|                                               |               |
|-----------------------------------------------|---------------|
| Panhandle Eastern                             | \$ 62,665,568 |
| Illinois Natural                              | 2,871,194     |
| Michigan Gas                                  | 12,643,847    |
| Indiana Gas                                   | 194,357       |
| Pipe Line Purchased from<br>Ohio Fuel Gas Co. | 439,326       |

|       |               |
|-------|---------------|
| Total | \$ 78,814,292 |
|-------|---------------|

Depreciation.<sup>13</sup> The respondents charge amounts for depreciation to operating expense and credit the same to depreciation reserves at the rate of approximately 3% per year on a straight-line basis. As shown by the respondents' books, the depreciation expense in 1941 was \$2,512,498, and the total accumulated depreciation reserves at December 31, 1941, was \$12,596,987. The Commission's staff recommends that for purposes of determining the rates to be fixed by interim order these amounts be accepted as the annual depreciation allowance and accrued depreciation respectively. The respondents agree that the books reserves should be accepted for purposes of these proceedings as the appropriate measure of the accrued depreciation. They do not deny that the annual depreciation expense as recorded on the books has been adequate and reasonable. The depreciation reserves, as of December 31, 1941, were as follows:

|                             |                         |
|-----------------------------|-------------------------|
| [fol. bb] Panhandle Eastern | \$ 10,405,047           |
| Illinois Natural            | 502,976                 |
| Michigan Gas                | 1,661,966 <sup>14</sup> |
| Indiana Gas                 | 26,998                  |
| Total                       | \$ 12,596,987           |

Where reasonable and proper depreciation accounting practices have been observed, the resulting reserve represents the best measure of the depreciation existing in the property and should be deducted from the gross cost in the rate base determination.<sup>15</sup> The record discloses that

<sup>13</sup>The term "depreciation" as herein used includes depletion and amortization.

<sup>14</sup>Reflects a deduction on \$36,000 of inter-company profit eliminated by the respondents on their consolidated statements, but not recorded on the books.

<sup>15</sup>Re Hope Natural Gas Co., FPC Op. 76; Re Chicago District Electric Generating Corp., 39 PUR (N. S.) 263, 275; Re Interstate Power Co., 32 PUR (N. S.) 1, 10.



the respondents have followed a consistent accounting method in recording the annual and accrued depreciation. The amounts have been determined by the management after consultation with an independent engineer and geologist as to the propriety and reasonableness of the annual provisions and the reserves. The testimony of the Commission's staff is to the effect that the amounts which the respondents have set up on their books are adequate and reasonable, having in view the economic life of the property as governed by such elements of depreciation as the exhaustion of the natural gas supply, wear, decay, inadequacy and obsolescence. There is no dispute that these amounts have been sufficient to provide for the restoration of the capital investment over the life of the gas supply.<sup>16</sup>

[fol. cc] The respondents, complainants, and Michigan Consolidated presented separate estimates of depreciation expense consisting of a combination amortization and annual replacement allowance. Under these estimates, the amortization allowance is accumulated at various sinking fund interest rates, but the replacement allowance is not calculated on a sinking fund basis. There is sharp disagreement both as to the sinking fund formula to be used in computing the amortization and as to the amount to be allowed for replacements. These differences lead to widely varying results.

No sufficient reasons have been advanced why these estimates are to be preferred to the amounts recorded on the respondents' books. For the purpose of disposing of the motions before us, we shall accept the respondents' recorded depreciation expense of \$2,512,498 as the reasonable annual allowance for depreciation, and the total accumulated depreciation reserves of \$12,596,987 as the actual existing depreciation in the plant as of December 31, 1941.

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<sup>16</sup>The respondents presented evidence indicating that Panhandle Eastern controls recoverable gas reserves of not less than 700 billion cubic feet in the Texas Panhandle field, and not less than 1,700 billion cubic feet in the Hugoton field, combined gas reserves adequate to supply the respondents' estimated market requirements for a period of more than 25 years. In fact, Panhandle Eastern's president testified that sufficient additional gas reserves could be secured on a favorable and economical basis to meet future requirements for the next 30 to 35 years.

Working Capital. The respondents claim the following amounts for working capital:

|                             |             |
|-----------------------------|-------------|
| Cash for operating expenses | \$ 517,175  |
| Cash for emergencies        | 100,000     |
| Minimum bank balances       | 316,303     |
| Prepayments                 | 134,538     |
| Materials and supplies      | 735,724     |
| Line pack                   | 65,407      |
| Total                       | \$1,869,147 |

The Commission's staff recommends a total working capital allowance of \$920,000. This sum includes for the respondents \$322,701 of cash for operation and maintenance expenses, \$489,893 for materials and supplies, \$101,097 for prepayments, and \$6,309 to provide working capital for Indiana Gas.

[fol. dd] We find the staff's estimated cash allowance for operation and maintenance expense of \$322,701 to be proper and reasonable. This sum is equal to 45 days of the actual total 1941 operation and maintenance expense of the respondents, excluding cost of gas purchased. The respondents' higher claim for this item is primarily due to the improper inclusion of Panhandle Eastern's cost of gas purchased. It is clear from the evidence that the respondents pay for such gas at about the same time in each month as revenues from gas sales are collected. Hence, no allowance should be included in working capital for the cost of such gas.

We accept the staff's recommendation of \$489,893 for materials and supplies. This amount represents the actual inventory on hand at December 31, 1941, the largest in the respondents' operating history. The respondents' higher claim is occasioned by the inclusion for Panhandle Eastern, in addition to the inventory as of June 30, 1941, of materials and supplies then on order and estimated to be ordered during the ensuing six months, without any deduction for materials and supplies issued and used during that period. The exorbitance of the respondents' estimate is demonstrated by the fact that it exceeds by at least \$260,000 the materials and supplies actually on hand at December 31, 1941.

The staff's allowance of \$101,997 for prepayments, representing the actual amount of such items as of December 31, 1941, is considered ample.

The evidence of record convinces us that \$920,000 is a fair and reasonable amount for working capital and the same is allowed.

We make no separate allowance for the items of line pack, cash for emergencies, and minimum bank balances. To do so would result in duplication. The evidence discloses that Panhandle Eastern has capitalized in its plant accounts amounts for line pack in excess of the sum separately claimed for that item as working capital. The amounts accrued by the respondents for Federal, State [fol. ee] and local taxes are more than sufficient to cover the cash required for emergencies and minimum bank balances. Panhandle Eastern alone had approximately \$3,000,000 in tax accruals at all times during the year 1941. Michigan Gas had accrued \$268,385 for Federal income taxes and \$114,000 for Indiana property taxes at December 31, 1941. We have consistently recognized that such tax accruals are available as cash working capital.<sup>17</sup>

**Going Concern Value.** We reject the respondents' claim for going concern value of \$7,822,533. \$5,500,000 of this amount is for so-called "carrying costs on that portion of plant idle, pending development of business," the same species of going concern value disallowed in the Natural Gas Pipeline Company of America case, *supra*. The said sum of \$5,500,000 consists of a portion of the operating expenses, bond interest and ad valorem taxes incurred from the beginning of Panhandle Eastern's commercial operations on April 1, 1932, to October 1, 1937, all of which has been recouped through past rates and charges. It appears from the evidence that the failure of Panhandle Eastern to attain sales capacity during this so-called "development" period was not due to initial difficulties in securing patronage, but was because of the refusal by its holding company, Columbia Gas & Electric Corporation, to permit Panhandle Eastern to sell gas in competition with

<sup>17</sup>Re Chicago District Electric Generating Corp., 39 PUR (N. S.) 263; 276. Re Canadian River Gas Co., et al., FPC Op. 73; Re Hope Natural Gas Co., FPC Op. 76.

other subsidiaries and in territory considered as lying within the sphere of influence of other holding company interests. Actually, customers along the line were "clamoring" for service, and no justification for the refusal to sell gas has been offered by the respondents.<sup>18</sup>

[fol. ff] \$736,519 is for "payments to utility customers" and "contributions to customers," consisting principally of reimbursements to distributing companies for expense incurred in the change-over from artificial to natural gas, and in promoting sales. Of this sum, \$383,722 has been recovered through past operating expenses, and the balance of \$352,897 is included in the allowed book cost of plant.

The remaining item of \$1,585,914, "value of gas purchase contracts," is a synthetic figure appearing nowhere on the books, representing the purported present value of future savings anticipated in the purchase of gas under certain advantageous contracts. The "value" is based upon the difference between the present field price and the lower contract prices of such gas. It would be a travesty on regulation to permit fictitious amounts of this character to inflate the rate base.

Conclusions as to Rate Base. Our conclusions with respect to the proper rate base as of December 31, 1941, may be summarized as follows:

|                                     |               |
|-------------------------------------|---------------|
| Actual Cost of Gas Plant in Service |               |
| at December 31, 1941                | \$ 78,814,292 |
| Less: Accrued Depreciation          | 12,596,987    |
|                                     | <hr/>         |
| Actual Cost Less Depreciation       | \$ 66,217,305 |
| Working Capital                     | 920,000       |
|                                     | <hr/>         |
| Rate Base                           | \$ 67,137,305 |

The rate base as of February 28, 1942, determined in the same manner, is \$66,697,358.<sup>19</sup> These amounts reflect the

<sup>18</sup>See Columbus Gas & Fuel Co. vs. Public Utilities Commission of Ohio, et al., 292 U. S. 398, 412.

|                                                   |               |
|---------------------------------------------------|---------------|
| <sup>19</sup> Actual Cost of Gas Plant in Service |               |
| at February 28, 1942                              | \$ 78,875,242 |
| Less: Depreciation Reserves                       | 13,097,884    |
|                                                   | <hr/>         |
| Actual Cost Less Depreciation                     | \$ 65,777,358 |
| Working Capital                                   | 920,000       |
|                                                   | <hr/>         |
| Rate Base at February 28, 1942                    | \$ 66,697,358 |

actual legitimate cost of the respondents' property as an [fol. gg] assembled whole and an established plant in successful operation.

The respondents contend that \$4,944,820 of construction work in progress, and budget estimates totaling \$6,372,100 to complete said construction, should be added to the rate base as of February 28, 1942. We conclude that it would be highly improper to include these amounts in the rate base. The facilities under construction are for the purpose of meeting the demands of new or increased business and consist mainly of plant additions to extend service to 80 communities in Michigan including Pontiac, Flint, Jackson, Battle Creek and Kalamazoo, involving service to territory not heretofore served by the respondents. If this construction were included in the rate base, rudimentary principles of fairness would require that full consideration also be given to the [addititonal] revenues to be obtained from the added territory. However, the respondents deny that it is possible to estimate such increases in revenues.

The exclusion of this incomplete construction from the rate base does not deprive the respondents of just compensation on their actual investment therein. The respondents follow the practice of capitalizing interests on such amounts during construction. To allow in addition a return during the construction period would result in duplicate charges against the customers. Insofar as the respondents' claim includes future capital expenditures, the same must, of course, be disallowed. As the Supreme Court held in the Natural Gas Pipeline Company of America case, *supra*:

" \* \* \* the refusal to include in the rate base capital expenditures not yet made can not involve confiscation."

#### Rate of Return.

A large part of the record is devoted to the subject of rate of return. The evidence on this subject is comprehensive and complete, dealing fully with those elements which Courts and Commissions have considered pertinent, such as the financial history of the respondents, the current cost of money, earnings on securities, commodity price indices, etc.



The respondents have advanced a novel theory which assumes that they are entitled to a return on their total capitalization as represented by the principal amounts of their outstanding securities including surplus. The fallacy inherent in this approach, however, is that it ignores the basic principle that the respondents are entitled to a fair and reasonable return upon the actual legitimate cost of their property devoted to the public service, less existing depreciation, plus a reasonable allowance for working capital, and no more.

The evidence discloses that the respondents' business is exceptionally free from serious business hazards. The gas supply is assured for at least 30 to 35 more years. We have made ample provision in the annual depreciation allowance for the restoration of the capital investment in the property over the claimed life of the gas supply. The respondents' markets are rapidly expanding and embrace the large metropolitan area of Detroit, which alone takes 40% of the entire output under a long-term contract. Panhandle Eastern's president testified that the demand for service is so great that within the next year the respondents will be called upon to sell every cubic foot of gas that can possibly be delivered through the lines, and that the capacity factor will increase from 70% to 90%.

It is likewise apparent from respondents' own evidence that Panhandle Eastern has been able to raise considerable capital at low cost. Only recently it successfully completed a financing program at remarkably low rates which resulted in a substantial reduction in its annual cost of capital. In February 1941, Panhandle Eastern sold \$18,250,000 of first mortgage and first lien bonds and \$5,000,000 of serial notes at an average annual interest cost of 2.74%. In February 1942, it sold an additional \$10,000,000 [fol. ii] of first mortgage bonds at an interest cost of 3.13% and \$15,000,000 of preferred stock at a cost of 5.86%. After the financing, Panhandle Eastern's annual cost of long-term debt was 2.88% and preferred stock was 5.87%, a combined annual cost of only 3.85% for these securities:

Panhandle Eastern has earned an average of 10.64% on its net investment over the past five years, and Michigan Gas an average of 8.5% during approximately the same period.



We conclude, upon careful consideration of the record in the light of the principles enunciated by the Supreme Court,<sup>20</sup> that 6½% is a fair and liberal annual rate of return upon the rate base allowed herein.

#### Rate Reduction.

The consolidated gross operating revenue of the respondents in 1941 was \$17,789,573.

For the purpose of disposing of the motions for an interim order, we accept the respondents' 1941 consolidated [fol. jj] dated operating expenses as shown on their books (before Federal income and excess profits taxes), with the exception of \$293,029 for the amortization of the write-up in "gas sales and purchase contracts" and \$6,000 of rate case expense. The operating expenses thus allowed total \$7,237,496. Adding Federal income taxes of \$1,093,768 computed at the 1941 tax rate on the taxable net income reflecting a fair return of \$4,363,925 (6½% of the rate base of \$67,137,305 as of December 31, 1941), brings the total allowable operating revenue deductions for 1941 to \$8,331,264.

The respondents' 1941 consolidated gross operating revenue, less proper operating revenue deductions, exceeds a fair return by \$5,094,384. This amount is available for an immediate rate reduction, as shown by the following tabulation:

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<sup>20</sup> See *Bluefield Waterworks & Improvement Co. vs. Public Service Commission of West Virginia*, 262 U. S. 679, 692, wherein it is stated: "What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally."

|                                    |              |
|------------------------------------|--------------|
| Gross Operating Revenue            | \$17,789,573 |
| Operating Revenue Deductions       | 8,331,264    |
| Income Available for Return        | \$ 9,458,309 |
| Reasonable Return—6½% of Rate Base | 4,363,925    |
| Total Available for Rate Reduction | \$ 5,094,384 |

It is clear that a reduction of \$5,094,384 in the respondents' 1941 rates would reduce gross operating revenue to \$12,695,189, which amount would yield a fair return upon the rate base as of December 31, 1941, after payment of all necessary and proper operating expenses and charges for that year.

The Test Period. The question arises as to whether the year 1941 is a proper period by which to test the respondents' rates. The record contains the respondents' revenues and expenses from the beginning of operations in 1932 through March 31, 1942. Consideration of these figures convinces us that the latest calendar year, 1941, is the most reliable guide for the future, in view of the changing [fol. kk] economic conditions and the respondents' rapidly expanding business.

The respondents contend that consideration should be given to a \$389,000 increase in operating expenses not fully included in their 1941 consolidated income statement, as follows:

|                                                             | Increased<br>Expenses<br>on Annual<br>Basis | Increases<br>Already<br>Included<br>in 1941<br>Expenses | Increases<br>Not<br>Included<br>in 1941<br>Expenses |
|-------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------|-----------------------------------------------------|
| Payroll Increases                                           | \$ 138,000                                  | \$ 64,500                                               | \$ 73,500                                           |
| Emergency Property Protection                               | 228,000                                     | 6,500                                                   | 221,500                                             |
| Amortization of Rate Case Expense <sup>21</sup>             | 70,000                                      | 6,000                                                   | 64,000                                              |
| Increased Cost of Employees' Welfare<br>and Pension Expense | 30,000                                      |                                                         | 30,000                                              |
| Total                                                       | \$ 466,000                                  | \$ 77,000                                               | \$ 389,000                                          |

It is also claimed that allowance must be made for future increases in Federal income and excess profits taxes. Significantly, the respondents do not ask us to consider future increases in revenues.

<sup>21</sup>The total rate case expense claimed is \$350,000. The respondents contend that this sum should be amortized over the next five years at the rate of \$70,000 per year.

A forecast to be proper must, of course, include a prediction of revenues as well as expenses. The record clearly shows the trends of both. The respondents' operating expenses, before Federal income taxes, increased 9.8% in the first three months of 1942 over the first three months of 1941. The claimed increases in expenses, including amortization of rate case expense, are fully reflected in the 1942 operating expenses. The gross operating revenue increased 13.8% over the same period, while the respondents' net investment in plant declined approximately \$700,000. Although the Congress has not yet passed the Revenue Act for 1942, it is certain that Federal income taxes will be increased. The House of Representatives has recently ap-[fol. 11] proved a bill providing for a combined normal and surtax rate of 45%, as compared with the 1941 rate of 31%.

With these data at hand, we can make a reasonable forecast of future operations. Applying these trends to the 1941 revenues and expenses, as adjusted in this opinion, and giving effect to the latest proposed Federal income tax rate of 45%, it appears that increases in revenues will more than offset all increases in expenses and taxes. This is shown by the following tabulation:

|                                                       | 1941         | Rate of Increase | Increase    | Projected for Full Year 1942 |
|-------------------------------------------------------|--------------|------------------|-------------|------------------------------|
| Operating Revenue                                     | \$12,695,189 | 13.845%          | \$1,757,649 | \$14,452,838                 |
| Operating Expenses, Exclusive of Federal Income Taxes | 2,237,496    | 9.82 %           | 710,722     | 7,948,218                    |
| Net Earnings Before Income Taxes                      | \$ 5,457,693 | 19.183%          | \$1,046,927 | \$ 6,504,620                 |
| Federal Income Tax (31% for 1941 and 45% for 1942)    | 1,093,768    | 88.234%          | 965,977     | 2,058,845                    |
| Net Operating Income                                  | \$ 4,363,925 | 1.875%           | \$ 81,850   | \$ 4,445,775                 |

Indeed, it is apparent from the foregoing that the net operating income for the projected year 1942 exceeds by \$81,850 the 6½% return of \$4,363,925 on the rate base of \$67,137,305.

The record compels the conclusion that this forecast is liberal to the respondents. The main transmission line

was operated at a 70% capacity factor in 1941. Panhandle Eastern's president testified that because of anticipated increased sales he fully expects the line to be operated at a 90% capacity factor in the near future. He further testified that the acquisition of Michigan Gas by Panhandle Eastern, effective February 6, 1942, would result in economies of operation which, of course, are not reflected in 1941 expenses.

We find upon the substantial evidence in the record that the reduction of \$5,094,384 in the respondents' rates [fol. mm] cited by the 1941 operations, will leave more than sufficient revenues to yield a fair return upon the rate base as of December 31, 1941.

**Direct Industrial Sales.** Upon the record before us, we consider it unnecessary to make an allocation of the respondents' business as between sales for resale and direct sales. The direct sales are made to 19 industrial customers on an interruptible basis and at prices fixed in competition with other fuels.

According to respondents' own evidence, no capacity has ever been constructed or provided in their gas plant for these direct industrial customers. It is equally clear that deliveries are made to them only when there is available excess off-peak capacity not required by the other wholesale customers. As evidence of this fact, in 1941 the volume of gas sold to the direct industrial customers amounted to 13.2% of the total system sales, whereas on the system peak day of the 1941-1942 winter the direct industrial sales constituted only 2.69% of the total deliveries, due to interruptions and curtailments brought about by the necessity for meeting the wholesale customer requirements.

Testimony of respondents' witnesses discloses that only \$128,848 of the entire investment in plant (less than one-sixth of one per cent) is used exclusively in the service of the direct industrials. Moreover, the respondents themselves treat their entire business as a unit and make no segregation of costs or profits on their books as between the two classes of sales. Indeed, Panhandle Eastern's

president testified quite clearly on cross-examination that any attempt to allocate would be "theoretical," "unrealistic" and "not practical" because of the unified character of the business.

Deliveries to the direct industrials are made only when the plant is not fully used in serving the requirements of the wholesale business, and are curtailed or interrupted [fol. nn] when the capacity is required by the wholesale customers. It is apparent that the incidental direct industrial business is in reality a by-product of the wholesale business, comparable to the respondents' gasoline extraction business. All parties are agreed that the expenses and revenues in connection with the sale of gasoline extracted from the natural gas should be treated as an integral part of the respondents' entire operations. Thus, it is manifest from the evidence that the direct industrial sales are purely incidental to the main or principal enterprise, viz.: the wholesale business of the respondents.

It is obvious from the record that respondents have made no clear and convincing showing that the direct industrial sales are so distinct and separate from the general wholesale business that the two cannot here be considered together. We conclude, therefore, that, under such circumstances, it is not unreasonable to treat the entire business as a unit requiring no allocation as between the two classes of sales.

#### Tax Increases Due to the War Effort.

While we have arrived at certain definite conclusions in disposing of the motions for an interim order reducing rates herein, the tax problem posed by legislation pending in the Congress makes it imperative that we make further comment on this subject.

We take judicial notice of the fact that our country is waging a war for survival. It is common knowledge that there will be increased tax burdens resulting from the requirements inherent in a global conflict. Business as usual is out—in fact, a great many so-called "small enterprises" have ceased to exist. Normal business during this period of grave emergency is at an end. Obviously, no



one can expect to maintain a status or condition of business unaffected by the holocaust now sweeping the world. Increased tax burdens must be borne by the utility which [fol. 60] enjoys a monopolistic position in the economic field, as well as by others who have no such advantage.

Proposals now pending in Congress to raise additional taxes are required to defray in part greatly increased expenditures resulting from the war effort. In this regard, the report of the House Committee on Ways and Means,<sup>22</sup> considering the proposed Revenue Bill of 1942, after first pointing out that "the cost of the war effort is placing upon the Nation a financial burden unequaled in our history," states:

"It is thus apparent that our revenue needs are extreme and your committee have endeavored to secure every dollar of additional revenue which, in its opinion, the national economy can bear. In its effort toward this objective, however, care has been exercised in every instance not to place an unbearable burden upon any taxpayer."

Moreover, the President in his message to Congress July 30, 1941, requesting enactment of legislation for control of prices, stated:

"Inflationary price rises and increases in the cost of living are today threatening to undermine our defense effort."

Thus it appears that the doctrine of unjust enrichment as well as equity and good conscience compel the conclusion that a utility should not be permitted to thwart the purpose and spirit of the war price control legislation and the revenue laws by passing such abnormal tax requirements along to its consumers as an operating expense to be collected in increased rates. Indeed, we feel increased rates on such a basis would be unjustifiable. To allow them would in effect impose upon the consumers a sales tax.

<sup>22</sup>Report No. 2333, 77th Congress, 2d Session, July 14, 1942.



[fol. pp] So that there may be no confusion concerning the tax situation in connection with the companies subject to our jurisdiction, where necessary to stabilize utility rates at reasonable levels during the war emergency period, we propose to allow as proper operating expenses only such taxes as may be termed ordinary or normal. For the purpose of distinguishing between ordinary or normal and war emergency or abnormal taxes, we conclude that the basis prescribed in the 1940 Revenue Act establishes the highest possible level of Federal taxes which may be allowed as an element of operating expense for such purpose. The 1941 Revenue Act and the pending 1942 proposal certainly reflect abnormal tax requirements for war purposes.

The conclusions we here express find validity in utterances of other regulatory bodies who were confronted with the problem of abnormal tax requirements in dealing with the utility industry as a result of the first World War.<sup>23</sup> Furthermore, the Public Service Commission of Wisconsin, on May 5, 1942, disapproved the application of the Wisconsin Telephone Company for authority to revise the base rate area and the rates at its Madison Exchange, a proposal estimated to increase the cost of telephone service to the subscribers in that area \$290,000 annually. In its opinion denying such request the Wisconsin Commission made this significant comment:

"We do not look with favor upon proposals to increase utility rates in these times. . . rates should not be increased solely because the management may consider that its return is less than it is entitled to ask in normal times."

Moreover, it is evident that Congress intended when it enacted the Emergency Price Control Act of 1942, that [fol. qq], during the prosecution of the present war, this Commission, in carrying out its regulatory responsibilities, should make every reasonable effort to assist in making effective the national policy of price stabilization. In

<sup>23</sup>See Re Western States Gas & Electric Co., PUR 1919B, 485, 493; Re United Fuel Gas Co., PUR 1920C, 583, 606.

this regard we will be alert to the necessity for checking unwarranted increases in utility rates which, if permitted, will contribute to the disruptive inflationary process now threatening to destroy our economy.

### Conclusion.

We conclude from the record that the present rates and charges of the respondents are unjust, unreasonable, unlawful and violative of the provisions of the Natural Gas Act. Therefore, until further order of this Commission, we determine for purposes of disposing of the motions before us that the just and reasonable rates, charges, classifications, rules, regulations, practices, or contracts to be hereafter observed by the respondents and fixed by order of this Commission shall reflect an immediate reduction of at least \$5,094,384 below those in effect during the year 1941.

An appropriate order will be entered in accordance with this opinion.

LELAND OLDS,  
Leland Olds, Chairman,  
CLAUDE L. DRAPER,  
Claude L. Draper,  
Commissioner,  
BASIL MANLY,  
Basil Manly, Commissioner,  
JOHN W. SCOTT,  
John W. Scott, Commissioner,  
CLYDE E. SEAVEY,  
Clyde L. Seavey, Commissioner.

Dated at Washington, D. C., this 23rd day of September, 1942.

LEON M. FUQUAY,  
Leon M. Fuquay, Secretary.

[fol. rr]

## Order Reducing Rates.

United States of America.

Federal Power Commission.

Commissioners: Leland Olds, Chairman, Claude L. Draper, Basil Manly, John W. Scott and Clyde L. Seavey.

September 23, 1942.

City of Detroit, Michigan,

and

County of Wayne, Michigan,

Docket No. G-200. vs.

Panhandle Eastern Pipe Line Company,

and

Michigan Gas Transmission Corporation.

In the Matter of

Panhandle Eastern Pipe Line Company,

Michigan Gas Transmission Corporation,

and

Illinois Natural Gas Company.

Docket No. G-207.

Upon consideration of the entire record herein, including the motions for an immediate order reducing rates, and having on this date issued its Opinion No. 80, which is made a part hereof by reference,

The Commission for the purpose of disposing only of the motions before it for an immediate order reducing rates, finds that:

(1) Panhandle Eastern Pipe Line Company (hereinafter referred to as "Panhandle Eastern") is a corporation organized and existing under the laws of Delaware; is engaged in producing, purchasing and gathering natural gas in the Amarillo field of the Texas Panhandle and in [fol. ss] the Hugoton field in Oklahoma and Kansas; is engaged in the transportation of natural gas in interstate commerce by means of facilities which include (a) a partially looped natural gas main transmission pipe line extending from a point in Moore County,

Texas, known as "Windmill Junction," for a distance of approximately 860 miles through the States of Oklahoma, Kansas, Missouri and Illinois and into the State of Indiana to a point near Dana, near the Illinois-Indiana boundary, and (b) a natural gas main transmission line approximately 33 miles in length extending generally eastward from a point near Muncie, Indiana, to a point approximately  $2\frac{1}{2}$  miles east of the Indiana-Ohio boundary; is also engaged in the sale in interstate commerce of natural gas so transported to various purchasers for resale for ultimate public consumption for domestic, commercial, industrial, and other uses; and is a "natural-gas company" within the purview of the Natural Gas Act;

(2) Michigan Gas Transmission Corporation (hereinafter referred to as "Michigan Gas") is a corporation organized and existing under the laws of Delaware; is engaged in the transportation of natural gas in interstate commerce by means of facilities which include (a) two natural gas main transmission pipe lines extending from a point of interconnection with Panhandle Eastern's main transmission line near Dana, Indiana, for a distance of approximately 70 miles, to a point near Zionsville, Indiana; (b) a main transmission line approximately 52 miles in length extending from said point near Zionsville, Indiana, to a point near Muncie, Indiana, where said line is interconnected with Panhandle Eastern's main transmission line; and (c) a main transmission line approximately 230 miles in length extending from said point near Zionsville, Indiana, to Detroit, Michigan; is also engaged in the sale in interstate commerce of natural gas so transported to various purchasers for resale for ultimate public consumption for domestic, commercial, industrial, and [fol. 11] other uses; and is a "natural-gas company" within the purview of the Natural Gas Act;

(3) Illinois Natural Gas Company (hereinafter referred to as "Illinois Natural") is a corporation organized and existing under the law of Illinois, is engaged in the transportation of natural gas in interstate commerce by means of facilities which include the lateral lines extending from Panhandle Eastern's natural-gas main transmission pipe line in Illinois; is also engaged in the sale in interstate commerce of natural gas so transported to various

purchasers for resale for ultimate public consumption for domestic, commercial, industrial, and other uses; and is a "natural-gas company" within the purview of the Natural Gas Act;

(4) The rates and charges demanded, observed, charged and collected by the respondents for the transportation and the sales of natural gas in interstate commerce, set forth in findings Nos. (1) to (3), inclusive, together with the rules, regulations, practices, and contracts, affecting such rates and charges, are subject to the jurisdiction of this Commission;

(5) Panhandle Eastern, Michigan Gas, Illinois Natural (hereinafter referred to collectively as "the respondents"), and Indiana Gas Distribution Corporation (hereinafter referred to as "Indiana Gas") are under common control and ownership, and are operated as a single, interconnected and integrated system for the production, purchase, gathering, transportation, sale and delivery of natural gas;

(6) The actual legitimate cost before depreciation, within the meaning of Section 6(a) of the Natural Gas Act, of the respondents' gas plant used and useful as of December 31, 1941, is not more than \$78,814,292, as follows:

|                                                    |                     |
|----------------------------------------------------|---------------------|
| Ill. and Panhandle Eastern                         | \$62,665,568        |
| Illinois Natural                                   | 2,871,194           |
| Michigan Gas                                       | 12,643,847          |
| Indiana Gas                                        | 194,357             |
| Pipe Line purchased from The Ohio Fuel Gas Company | 439,326             |
| <b>Total</b>                                       | <b>\$78,814,292</b> |

The said actual legitimate cost of \$78,814,292 gives effect to the acquisition on February 6, 1942, by Panhandle Eastern of Michigan Gas and Indiana Gas and the purchase by Panhandle Eastern from the Ohio Fuel Gas Company of a pipe line approximately 33 miles in length extending eastward from a point near Muncie, Indiana, to a point approximately 2½ miles east of the Indiana-Ohio boundary;



(7) The respondents' accumulated depreciation reserve as of December 31, 1941, totaling \$12,596,987, as follows:

|                   |              |
|-------------------|--------------|
| Panhandle Eastern | \$10,405,047 |
| Illinois Natural  | 502,976      |
| Michigan Gas      | 1,661,966    |
| Indiana Gas       | 26,998       |
| Total             | \$12,596,987 |

are accepted, for the purpose of these proceedings, as the accrued depreciation existing in the respondents' gas plant as of December 31, 1941, and should be deducted from the actual legitimate cost of \$78,814,292 in arriving at the rate base;

(8) The sum of \$920,000 is the proper and reasonable allowance for working capital for the respondents;

(9) The sum of \$67,137,305 is the proper rate base for the purpose of these proceedings, as shown by the following tabulation:

|                                               |              |
|-----------------------------------------------|--------------|
| [fol. vy] Actual Legitimate Cost of Gas Plant |              |
| In Service at Dec. 31, 1941                   | \$78,814,292 |
| Less: Accrued Depreciation                    | 12,596,987   |
| Actual Legitimate Cost, Less Depreciation     | \$66,217,305 |
| Working Capital                               | 920,000      |
| Rate Base                                     | \$67,137,305 |

and the said rate base of \$67,137,305 reflects the actual legitimate cost of the respondents' property as an assembled whole and an established plant in successful operation;

(10) An annual rate of return of not more than 6½% on the rate base of \$67,137,305, or \$4,363,925, is a fair and reasonable return to the respondents;

(11) The respondents' consolidated gross operating revenues in 1941 totaled \$17,789,573;

(12) The respondents' total consolidated 1941 operating expenses, as shown on their books (before Federal income and excess profits taxes), are accepted as the proper annual operating expenses for the purpose of these proceedings, with the exception of \$293,024 for amortizing a write-up in "gas sales and purchase contracts" and \$6,000



of rate case expense; the amount so accepted is \$7,237,496; and adding thereto Federal income taxes of \$1,093,768 makes the total annual consolidated operating revenue deductions \$8,331,264 for the purpose of these proceedings;

(13) The respondents' 1941 consolidated gross operating revenues, less deductions for proper operating expenses, exceed a fair return on the rate base of \$5,094,384, as shown by the following tabulation:

|                                    |              |
|------------------------------------|--------------|
| Gross Operating Revenues           | \$17,789,573 |
| Operating Revenue Deductions       | 8,331,264    |
| Income Available for Return        | \$ 9,458,309 |
| Fair Return—6½% of Rate Base       | 4,363,925    |
| Total Available for Rate Reduction | \$ 5,094,384 |

[fol. ww] (14) The rates and charges made, demanded, or received by the respondents for or in connection with their transportation and sale of natural gas in interstate commerce for resale for ultimate public consumption are unjust, unreasonable and excessive;

(15) The rates and charges of the respondents, after reflecting the reduction hereinafter ordered, will be just and reasonable;

Therefore, the Commission orders that:

(A) The rates and charges made, demanded, or received by the respondents for or in connection with their transportation and sale of natural gas in interstate commerce for resale for ultimate public consumption shall be so reduced as to reflect, when applied to respondents' 1941 transportation and sales, a reduction of not less than \$5,094,384 per annum below their 1941 consolidated gross operating revenues of \$17,789,573;

(B) The respondents shall file on or before October 15, 1942, new schedules of rates and charges for or in connection with their transportation and sale of natural gas in interstate commerce for resale for ultimate public consumption, which shall reflect the reduction in consolidated gross operating revenues ordered in paragraph (A) above, which new schedules of rates and charges shall be effective as to all bills regularly rendered on or after November 1, 1942;

(C) The Commission reserves the right to reject all or any part of such new schedules and in lieu thereof to prescribe any other schedules by further order;

(D) On and after the effective date of the new schedules of rates and charges filed and made effective in accordance with paragraph (B) above, the respondents shall cease and desist from making, demanding, or receiving any rates and charges which do not reflect the reduction ordered in paragraph (A) above;

[fol. xx] (E) The record herein shall remain open for such further proceedings as the Commission may deem necessary or desirable;

(F) This order shall not be construed as an acquiescence by this Commission in any estimates or determinations of original cost, or any valuation of property, claimed or asserted by the respondents.

By the Commission.

LEON M. EUQUAY,  
Secretary.

[fol. yy]

Exhibit B.

Order Extending Time Within Which to File New  
Schedules of Rates and Charges.

United States of America.

Federal Power Commission

Commissioners: Leland Olds, Chairman, Claude L. Draper, Basil Manly, John W. Scott and Clyde L. Seavey.

October 12, 1942.

City of Detroit, Michigan,

and

County of Wayne, Michigan,

Docket No. G-200. vs.

Panhandle Eastern Pipe Line Company,

and

Michigan Gas Transmission Corporation.

In the Matter of

Panhandle Eastern Pipe Line Company,

Michigan Gas Transmission Corporation,

and

Illinois Natural Gas Company.

Docket No. G-207.

Upon motion filed with the Commission October 9, 1942, by Panhandle Eastern Pipe Line Company, Michigan Gas Transmission Corporation and Illinois Natural Gas Company, praying that additional time be granted Respondent-Defendants for the preparation and filing of new schedules of rates and charges as provided for in Section (B) of the Commission's order of September 23, 1942:

It appearing to the Commission that:

Good cause has been shown for the granting of the extension of time hereinafter ordered:

[fol. zz] The Commission orders that:

The time within which the Respondent-Defendants shall file the new schedules of rates and charges required by the Commission's order of September 23, 1942, be and the same is hereby extended to November 10, 1942, provided, however, that:

(i) The extension of time herein granted shall not operate as a change of the date on which the new schedules of rates and charges shall be effective, namely, November 1, 1942;

(ii) Nothing in this order shall be construed as staying the time within which Respondent-Defendants shall file a petition for rehearing or a petition for review as provided in Section 19 of the Natural Gas Act.

By the Commission.

FPC Seal

J. H. GUTRIDE,

Acting Secretary.

(Endorsed): No. 12,466. Filed in U. S. Circuit Court of Appeals on November 18, 1942.

[fol. 1] (Transcript of Testimony before Federal Power Commission.)

Official Stenographer's Report

before the

Federal Power Commission

Subject:

City of Detroit, Michigan, and County of Wayne,  
Michigan.—

Docket No. G-200. vs.

Panhandle Eastern Pipe Line Company and Michigan Gas  
Transmission Corporation.—

Washington.

July 15, 1941.

[fol. 3] Proceedings.

Trial Examiner: The hearing will be in order, gentlemen, in the matter of the complaint of the City of Detroit, Michigan, and the County of Wayne, Michigan, against the Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Corporation. This is Federal Power Commission Docket No. G-200.

[fol. 7] Please let us have your appearances, gentlemen, in the order in which the various parties have been stated, such as the City of Detroit, first, and the County of Wayne, next.

[fol. 8] Mr. Lee: James H. Lee, on behalf of the Petitioner, City of Detroit,—Assistant Corporation Counsel.

Mr. Goodman: Harold Goodman, for the County of Wayne.

Mr. Williams: James W. Williams, Assistant Attorney General, State of Michigan, appearing for the Michigan Public Service Commission.

Mr. Chamberlain: Park Chamberlain, and Henry A. Montgomery, for the Michigan Consolidated Gas Company, as interveners.

Mr. Wheat: Glenn W. Clark, B. H. Culton, Carl I. Wheat, and Robert E. May, for the Defendant, Panhandle Eastern Pipe Line Company.

Mr. Baldridge: Milton C. Baldridge, for the Respondent, Michigan Gas Transmission Corporation.

Mr. Slaff: For the Federal Power Commission, George Slaff and W. Russell Gorman.

Trial Examiner: That completes our record of appearances, I take it, gentlemen.

[Vol. 19]

MANFRED K. TOEPPEN,

a witness produced on behalf of the Petitioners, having been first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Goodman:

Q. Mr. Toeppen, where do you reside?

[Vol. 20] A. My legal residence is Lansing, Michigan, and I have been living in Alexandria, Virginia.

Q. What is your occupation?

A. I am an engineer.

Q. What is your present connection?

A. At present, I am on leave from my position with the Communications Property Section of the Federal Communications Commission.

Q. And you are here, or you have prepared your work here, under private employment, have you not?

A. I have prepared my work here and am testifying as a private consultant for the City of Detroit.

Q. Now, Mr. Toeppen, you are a graduate of what institution?

A. Washington University, in 1908.

Q. With what degree?

A. Bachelor of Science in Electrical Engineering.

Q. And upon what date did you graduate?

A. 1908.

Q. How many years engineering experience have you had?

A. I have been continuously employed in engineering since that time.

Q. And in that period, what branches or subjects of engineering were you primarily engaged in?

[fol. 21] A. Various forms of public utility services, street railway, electric power, telephone, gas, natural gas, either as an employee of operating companies or as an employee of regulatory bodies, or in private practice.

Q. Now, when you left college, what was your first connection?

A. I went to work for the United Railways Company of St. Louis.

Q. What capacity?

A. I was first assistant engineer in the power department, and then was chief inspector of the line, or overhead department.

Q. Now, did you remain in this connection until you went into the telephone line work? A. I did.

Q. And when was that?

A. That was first as student, and then as exchange engineer with the Southwestern Bell Telephone Company of St. Louis, in 1912.

Q. And what did your work consist of, for the most part?

A. The laying out, planning, and cost estimating of telephone distributing plants, poles, wires, cables, and conduit.

Q. And from that job, what was your next connection?

A. Still with the telephone companies, in the office of [fol. 22] chief engineer of the central group of the Bell Telephone Companies of Chicago, from July, 1914, until February, 1915, mostly on valuation and cost work.

Q. And did you continue further in the telephone line work? A. Yes.

Q. In what capacities?

A. In February, 1915, I transferred to the organization of the Receivers of the Central Union Telephone Company, which were operating the Bell Company properties in Indiana, Illinois, and Ohio, under a receivership.

Q. And—



A. (Interposing) And was in the office of chief of engineers.

Q. What work were you in charge of?

A. As assistant to the general commercial engineer in charge of valuation, rates, and fundamental plant studies.

Q. Now, did you establish a connection with the Michigan State Telephone Company?

A. In 1918 I went with the Michigan State Telephone Company at Detroit, first as special telephone line engineer and then as valuation engineer.

Q. Well, at around that time,—you left it subsequently,—you left the Michigan State Telephone Company and what was your next connection?

[fol. 23] A. With the General Oil Company as chief engineer in charge of lease surveys and engineering phases of drilling.

Q. Did you subsequently secure a connection with the Michigan Public Utilities Commission? A. I did.

Q. When?

A. April, 1920, I became valuation engineer for the Michigan Public Utilities Commission at Lansing, remaining as valuation engineer for two years, when I became chief engineer in charge of all of the work for the Commission.

Q. Now, as chief engineer what did your work consist of, in general?

A. Directing the engineering work relating to all utilities under their jurisdiction such as manufactured gas and electric light and power and telephones and interurban railways.

Q. Now, have you, from time to time, worked in any private capacity as an engineer?

A. In July, 1924, I took leave of absence from the Michigan Commission to become its consultant in charge of the second investigation of the Michigan Telephone Company properties, and after completing that work, I resigned in order to enter, or rather to continue, private practice as a consultant for the City of New York in the telephone proceedings both before the Commission and the Federal [fol. 24] courts and for the Michigan Commission and the Attorney General of Michigan in the proceedings between the Michigan Bell Telephone Company and the State of

Michigan in the Federal court at Detroit, and consultant for the Michigan Commission in connection with the application of the United Home Telephone Company of Muskegon, and consultant for the Detroit-Canada Tunnel Company in its security application, and for the Tri-County Telephone Company in its application for securities and rates; also, in Michigan, and for the Michigan Commission, again, in the case of the Michigan Federated Utilities, Inc., versus the Commission, relating to gas rates in Mount Clements; and for the cities of Dearborn and River Rouge in the case of the City of Detroit versus Detroit Edison Company regarding rates in the Detroit area before the Michigan Commission; and, in 1931, again for the Michigan Commission, in another investigation of the Michigan Bell Telephone Company, and then again, in 1934, I became chief consulting engineer of the Michigan Commission.

Q. Now, in the period from 1925 to 1934, all that period, were you a practicing general consulting engineer?

A. I was.

Q. And you were a specialist, more or less, in rate matters? A. I was.

Q. Rather more than less? A. Yes.

[fol. 25] Q. And during your experience, did you have occasion to study the principles involved in the valuation of public utility properties? A. I did.

Q. And did you have occasion to study the principles involved in the establishment of rates for public utility services? A. I did.

Q. And did these include substantially all manner of public utilities? A. Yes.

Q. Gas and electric rates and power, included, as well as telephones? A. That is right.

Q. Now, have you had occasion also to study the principles of depreciation applicable to rate-fixing? A. I have.

Q. You had occasion also to study the elements of going value applicable in the fixing of rates, did you?

A. I did.

Q. And, in short, it was your business to handle and to apply every phase of appropriate principle to your knowledge, to the general subject of regulation of rates?

A. That is correct.

[fol. 26] Q. Well, what connection did you have after you were chief consulting engineer for the Michigan Public Utilities Commission?

A. I would like to review some of my work in that connection before going ahead.

Q. Very well, proceed.

A. During the engagement which lasted from March, 1934, to May, 1935, I was in charge of all engineering work of the Commission again, and for part of the time in charge of a substantial part of accounting; incidentally, in the 1924 investigation of the Michigan Bell Telephone Company, I had also been in charge of the accounting work as well as the engineering work, and in the 1934 engagement, there was another really continued rate proceeding against the Michigan Bell Telephone Company, and there were a number of—one principally, I believe, and some minor,—but, one principal natural gas transmission line case before the Michigan Commission, and that was concerning the Muskegon supply by the American-Michigan Pipe Line Company, and a number of smaller light and power rate cases, and the writing of the Michigan Commission's rules for production, transmission, and sale of natural gas by a committee of which I was chairman.

Q. Did you have occasion, Mr. Toepfen, to become familiar with the principles involved in the valuation and the rates affecting the gas transmission companies,— [fol. 27] natural gas? A. I did.

Q. What was your connection subsequent to that of chief consulting engineer for the Michigan Commission?

A. On May 1, 1935, I went to the Federal Communications Commission as principal telephone engineer, subsequently becoming chief of the Valuation and Depreciation Section of the special investigation dealing with the investigation of various aspects of depreciation practices of telephone companies.

Q. Have you had some private practice during that period?

A. Not during that first period; that engagement lasted during the continuance of the special investigation and terminated January 1, 1937, I believe, when I became a member of the regular staff of the Commission as chief of the Communications Property Section where I have continued with the work we had been doing in the Valua-

tion and Depreciation Section and, too, certain additional duties of which I have been in continuous charge since. During this last engagement, I have taken leave on two prior occasions to engage in private practice.

Q. And were they engagements in behalf of public representatives?

A. They were: the first time, for the Michigan Public [fol. 28] Utilities Commission, to prepare a study of the gas division of the Consumers Power Company at Kalamazoo, Michigan; and on the second occasion, to serve the Prosecuting Attorney of Wayne County in the Michigan Consolidated Gas Company case before the Commission.

Q. Mr. Toeppen, have you made an investigation of the operating results during the past several years of the Panhandle Eastern Pipe Line Company and the Michigan Gas Transmission Company? A. I have.

Q. And will you state the sources and general nature of that investigation?

A. The sources were the reports of these companies filed with the Federal Power Commission for the years 1939 and 1940; the registration statement filed by the Panhandle Eastern Pipe Line Company with the Securities and Exchange Commission, and the information contained in Moody's Reports on Public Utilities, together with the general knowledge of the territory traversed by the pipe lines, at least east of Kansas City, and a rather detailed knowledge of the territory east of Kansas City—and a knowledge of the gas consumption conditions in Detroit, and the general knowledge of the economic conditions of [fol. 29] the entire Middle West through many years of living and working in that territory.

Q. Have you prepared a statement of the operating results of Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Corporation in exhibit form?

A. I have.

Mr. Goodman: I desire to have the exhibit marked, please.

Trial Examiner: The reporter will mark this exhibit as Exhibit No. 1 for identification.

(The Document Referred To Was Marked For Identification as Exhibit No. 1.)

Mr. Goodman: Exhibit No. 1 consists of six pages marked I-A to -F. I will hand the original to the Commission.

. . . . .

[fol. 30] By Mr. Goodman:

Q. What does Exhibit 1 embody?

A. Exhibit 1 is a summary of the recorded costs of the properties of the Panhandle Eastern Pipe Line Company and the Michigan Gas Transmission Company and of the operating results during the years 1938, 1939 and 1940.

Q. And does Exhibit 1 represent your opinion of those subjects based upon the data that you have mentioned?

A. I wouldn't say any opinion there, it is a summary of facts.

Q. It represents the facts which come to your attention from the data mentioned?

A. They do.

Q. Now, I offer Exhibit 1 consisting of six sheets in evidence.

Mr. Wheat: Mr. Examiner, I wonder if we can reserve ruling until we have had an opportunity to examine the exhibit? This is the first time we have seen it. It comes to us entirely cold.

Trial Examiner: The ruling on admission will be deferred for the time being.

Mr. Baldridge: I would like to have ruling reserved on behalf of the Michigan Gas Transmission Corporation.

Trial Examiner: Very well.

[fol. 31] By Mr. Goodman:

Q. Will you proceed to explain the exhibit and the matter included therein?

A. The first sheet of this exhibit is a summary of the details set forth in the following five sheets which have been drawn from the annual reports of the two companies.

The first several lines, the first two lines show the recorded cost less recorded reserves of the Michigan Gas Transmission and Panhandle Eastern Pipe Line companies as at the end of the three years, 1938, '39 and '40.



The second line is a work line in which I laid the foundation for arriving at an average and the third line is the average cost less reserves during 1939 and 1940.

For 1938 I have used the cost at the end of the year as I could not get from the annual reports the cost less reserves at the beginning of 1938.

The next line is an allowance for working capital based on an analysis of the approximate amount of pay rolls of the two companies.

The line marked "Total" is the cost, less reserves, plus working capital of the properties of the two companies, of the Panhandle Eastern and Michigan Gas Transmission companies, used in producing and transmitting gas from the Texas and Kansas fields to the various customers en route in Detroit and other eastern points at the end of the pipe line.

[fol.32] Mr. Wheat: Mr. Examiner, counsel has no objection to my asking a question for information, if I may, to clarify one matter here, if that will be agreeable to you, sir.

Trial Examiner: Is that satisfactory, Mr. Goodman?

Mr. Goodman: It is satisfactory. I think that counsel should be permitted to ask such questions in matters of this sort in order that they may understand the testimony as it proceeds.

Mr. Wheat: Thank you, sir.

Just one question, Mr. Toeppen. Are we to understand that what you have done on these figures on Exhibit 1 is to take figures obtained from file data, as you have stated, with respect to these two separate corporations and simply add them together and get your results?

The Witness: I have added together, as I will explain, with respect to pages 2, 3 and 4 of this exhibit the reported cost of gas plant from the reports of these two companies to get the cost of the entire property used in producing and transmitting gas from the Texas and Kansas fields to the various customers along the line and at the end of the line.



Mr. Wheat: Then any figures on page 1 of Exhibit 1, are we to understand, apply to the two companies together in the manner you have suggested, not to each individual company?

The Witness: They apply to the two companies jointly, being the entire property used and useful in supplying [fol. 33] gas to the customers of the Panhandle Eastern Company and of the Michigan Gas Transmission Company.

Mr. Wheat: I see. Well, I assume, Mr. Goodman, that an explanation of how the figures were arrived at will be shown later, but I just wanted to find out how you had done that. Thank you.

By Mr. Goodman:

Q. Proceed.

A. The line, "Utility Operating Revenue," is the combined utility operating revenue as reported for the Panhandle Eastern Pipe Line Company and for the Michigan Gas Transmission Company for the years indicated.

The line, "Percent Utility Operating Income of Average Cost Less Reserves of Utility Plant, Plus Working Capital," is simply the ratio of the last preceding line to the line marked "Total" and that shows that these companies combined earned a return, after provision for depreciation, depletion and amortization, of 7.96 percent of the cost less reserves in 1938, subject to possible adjustment between the end of the year, the average figure, and in 1939 10.59 percent was the average and 10.30 percent was the average in 1940.

The bottom of the sheet is simply an analysis of the amounts set aside for depreciation, depletion and amortization during each of these years as measured against the first cost as reported in the books of the properties [fol. 34] of the companies, the first cost being shown in the first three lines of the sub-group developed similarly to an average during the year as was done with the first three items on the page.

The next line is the total of the provisions for depletion, depreciation and amortization and the last line is the ratio which shows these provisions to have been at the

rate of 3.53 percent of the first cost of plant in 1938, 3.67 in 1939 and 3.32 in 1940.

Now, on the second page is shown separately the information with respect to each of the two companies which were combined, Column A being the information with respect to the Panhandle Eastern, Column B with respect to Michigan Gas Transmission Company and the last column being the total of the two.

I think the title of the lines and the operations performed are, in general, self-explanatory. I have added back the reserves for amortization of gas sales and purchase contracts so as to get a complete first cost instead of a mixed first and depreciated cost of plant and I have deducted construction work in progress because construction work in progress is not properly a part of a rate base because its earnings and its provision for protection of the investors are reflected in the interest-during-construction allowance included in construction work in progress.

Then, I have summarized in line 6 the various reserves [fol. 35] provided by the company according to the total set forth in the annual reports, again including the amortization of gas sales and purchase contracts which I added back up in line 2.

Then I deduct the total of these reserves from the cost new of plant in service to determine the cost, less reserves, which is set forth in line 7.

In lines 8 to 12 I combine the reported utility operating income with the provisions for depreciation, depletion and amortization in order to arrive at the total amount available for depreciation, depletion, amortization and return.

This first sheet is for the conditions as of December 31, 1938 and the same operation is repeated for the condition at the end of 1939 in the next sheet and for the condition at the end of 1940 in the following sheet marked "1d" in the lower left-hand corner.

The sheet after that, i.e., is a comparison of current assets, current and accrued assets and current and accrued liabilities to determine the probable working capital on this particular basis of estimating.

The first two numerical columns set up the amounts shown in the annual reports for the two companies as of the end of 1939 and '40 and derive the excess of assets over liabilities which turned out to be a deficiency in 1938 and of substantial magnitude in 1939 and '40. However, as [fol. 36] shown at the bottom of the page, there was a substantial increase in cash in 1939 and 1940 over the cash in 1938 which, in view of the increase in investment in fixed capital, I assume to be related to the construction operations carried on in the latter years and not relating to operation and I have, therefore, adjusted the balances in 1939 and 1940 by the excess of the cash in those years over the cash in 1938 on the assumption that that additional cash was acquired for construction and not for operating purposes.

After this adjustment, liabilities exceed assets in 1938 and in 1940 and assets slightly exceed liabilities in 1939. On the basis of this condition, there would be no need for any working capital allowance in the rate base.

I have further on sheet 1f, lower left-hand corner, roughly approximated the pay rolls by taking the amounts shown for the year 1940 for those accounts which are predominantly labor accounts, although I have adjusted the operation accounts by deducting the gas used in transmission included in it, and I have reduced administrative and general expenses by one-half on the assumption that it contains legal services and insurance and items of that kind which are not of the pay-roll character and have derived the total, approximate total, in the amount of \$1,269,000 during the year or approximately one hundred five thousand-odd, one hundred six thousand a month, and I have allowed, as shown on the first page, \$100,000 of [fol. 37] working capital, being the approximate average monthly pay roll.

Q. Is it your opinion that that allowance is adequate for the amount to be included in the calculation? A. It is.

Mr. Goodman: That covers Exhibit L. I renew the offer of Exhibit 1 in evidence.

Mr. Wheat: We should like the privilege of having ruling reserved until the conclusion.

Mr. Baldridge: I would like to reserve my objection to Exhibit 1 until further cross-examination.

Trial Examiner: You have further testimony?

Mr. Goodman: Oh, yes, quite a bit.

I desire to have this paper marked Exhibit 2 for identification.

(Document referred to was marked Exhibit 2 for identification.)

Mr. Goodman: I am supplying three copies.

By Mr. Goodman:

Q. Will you identify the paper marked Exhibit 2?

[fol. 38] Trial Examiner: Before we take that recess, however, I should like to express a request. It is evident that there are various companies with various affiliations which are now or will ultimately be involved in this proceeding and my attention was called yesterday to the advance sheets of the Supreme Court reports, the case of Missouri-Kansas Pipe Line Company, Panhandle Eastern Pipe Line Company vs. United States of America, reported in Volume 85, No. 3, page 586, which gives a considerable part of the affiliations existing between the several companies mentioned in that decision.

The Missouri-Kansas Pipe Line Company and its relation to Panhandle Eastern are set forth there, but I am also informed that there have been recent changes in the matter of affiliations.

I would like to have you give us very early in the record, right after the luncheon recess if possible, an exact statement [fol. 39] of the present existing affiliations between the several companies, all of them, and if there are further changes prospective in affiliations, I would like to have some exact statement concerning the status of such negotiations.

I think that is important for us to have in the record immediately in the early part of the proceedings.

[fol. 42] Mr. Clark: Your Honor, responding to your request made just before the noon adjournment, we, on behalf of Panhandle Eastern Pipe Line Company, have attempted to assemble the correct facts and figures for you with respect to the Panhandle Eastern Pipe Line Company's status concerning affiliations, and I will give you those, very briefly:

As to the capital structure of Panhandle Eastern Pipe Line Company, there are outstanding 807,367 shares of common capital stock; also, 100,000 shares of Class A 6 percent participating preferred stock; also, 10,000 shares of Class B preferred stock which is non-callable and has the right, as a class, to elect two directors.

Of this stock, which is all of the outstanding stock of the company, 404,326 shares of common stock is owned by Gano Dunn and held beneficially for Columbia Oil & Gasoline Corporation as trustee under a so-called consent decree; 339,475 shares of the common stock is owned by Missouri-Kansas Pipe Line Company; the balance of the common stock, being 63,566 shares, is owned by approximately 1,500 other stockholders.

All of the Class A preferred stock and the Class B preferred stock is owned or held by Gano Dunn as trustee and held beneficially for Columbia Oil & Gasoline Corporation. [fol. 43] tion.

Recently, there was a hearing before the Securities and Exchange Commission, and, on May 28, 1941, that Commission entered findings and its opinion, in which it held Columbia Oil and Gasoline Corporation to be a subsidiary of Columbia Gas & Electric Corporation, and held this defendant, the Panhandle Eastern Pipe Line Company, to be a subsidiary of both Columbia Oil & Gasoline Corporation and of Columbia Gas & Electric Corporation. It also held that Panhandle Eastern Pipe Line Company was not a subsidiary of Missouri-Kansas Pipe Line Company.

Leaving now that finding and opinion of the Commission, which I am going to hand Your Honor at the close of this statement,—Michigan Gas Transmission Corporation, which is codefendant with Panhandle Eastern Pipe Line Company, is a direct subsidiary of Columbia Gas & Elec-



tric Corporation. Since the finding of the Securities and Exchange Commission, a contract has been entered into between the Columbia Gas & Electric Corporation, Columbia Oil & Gasoline Corporation, and Missouri-Kansas Pipe Line Company, subject to the approval of the Securities and Exchange Commission and of the Delaware court, which, if and when carried out, will change the existing status of those companies and their relationship to Panhandle Eastern Pipe Line Company which is not a party to that contract and does not have a copy of it, but there [fol. 44] has been handed to me, here, a summary of the contract insofar as it is pertinent to Panhandle Eastern Pipe Line Company. Under that contract, if and when carried out, Michigan Gas Transmission Corporation is to be sold by Columbia Gas & Electric Corporation to Panhandle Eastern Pipe Line Company at cost. Panhandle Eastern is to have the right to acquire from Columbia Gas & Electric Corporation other connecting pipe lines in Indiana for approximately \$355,000. These would constitute all of Columbia Gas & Electric Company's lines in Indiana.

The two classes of outstanding preferred stock of Panhandle Eastern Pipe Line Company would be refinanced in a public issue contemplated. Columbia Oil & Gasoline Corporation would distribute its stock in Panhandle Eastern Pipe Line Company,—that is, the stock in Panhandle owned by the Columbia Oil & Gasoline Corporation, and held by Ganó Dunn as trustee; and, Missouri-Kansas Pipe Line Company would distribute its common stock—its Panhandle Eastern Pipe Line Company common stock—at the same time.

A new and independent Panhandle Eastern Pipe Line Company board of directors would be elected and a new executive head would be installed.

This contract, as I have stated, will be subject to approval by the Securities and Exchange Commission and the Delaware Federal court.

I am sorry I do not have a copy of that contract, but [fol. 45] as I say, we are not a party to it and I do hand you the findings and opinion of the Securities and Exchange Commission in that recent hearing.

• • • • •

[fol. 46] Mr. Chamberlain: Michigan Consolidated Gas Company is a wholly owned subsidiary of American Light & Traction Company. American Light & Traction Company, in turn, is a subsidiary of United Light & Railways Company, the latter company owning about 53 percent, I believe, of the voting shares. There is also, at the moment, a relationship there with United American Company, a company now about to be dissolved, but United American, again, is a wholly owned subsidiary of United American Railways, so the two are about to be merged into one. United Light & Railways is a wholly owned [fol. 47] subsidiary of United Light & Power Company, a public utility holding company registered under the Act of 1935.

[fol. 48]

MANFRED K. TOEPPEN

resumed the witness stand on behalf of the Petitioners and, having been previously duly sworn, was examined and testified further as follows:

#### Direct Examination (resumed)

By Mr. Goodman:

Q. Mr. Toeppen, during the recess you made some corrections in Exhibit No. 1, as heretofore offered, did you not?

A. Yes; in checking the figures in the proposed Exhibit No. 2, I found that they came out of Exhibit No. 1 and that there had to be corrections on the first sheet of Exhibit No. 1.

Q. And you have a substitute now for Exhibit No. 1?

A. I do.

Q. Now, is everything included in your testimony applicable to the Exhibit No. 1 as corrected, which you offer now?

A. Everything I stated is applicable, with the exception that certain figures in the first and second columns, in the last five lines, will read as shown on the revised exhibit, rather than as read on the original exhibit.

[fol. 49] Q. Well, the testimony given—

A. (Interposing) Applies to the revised exhibit.

Q. Is applicable to Exhibit No. 1 as now revised?

A. It is.

Mr. Goodman: Your Honor, I ask leave to withdraw Exhibit No. 1, as presented, and to present the substitute for it, including the corrections. Now, the request for withdrawal and substitution applies only to page 1 of Exhibit 1,—the rest of the exhibit stands as it is.

Trial Examiner: You may make the necessary changes and assist the reporter so that the original exhibit will stand.

Mr. Goodman: ~~Very~~ Very well; if the original is to stand, this will be put in as a correction.

Trial Examiner: That is correct.

Mr. Goodman: I suggest, but I leave it to Your Honor's judgment,—it might perhaps be better to withdraw the exhibit as presented today, completely, because it will just stand in the way. I think it best to take up Exhibit 1 as presented,—page 1 of Exhibit 1, and put the substitute instead.

Trial Examiner: ~~Very~~ Very well.

(Whereupon, page 1 of Exhibit No. 1 for identification, as originally offered, was removed, and a corrected page 1 to Exhibit 1 was placed in the record.)

Mr. Goodman: May I have this exhibit marked for identification as Exhibit No. 2?

[fol. 50] By Mr. Goodman:

Q. Will you proceed to identify Exhibit No. 2?

A. Exhibit No. 2 is a compilation from the annual reports of the companies, supplemented by certain calculations intended to show the relation of the amount available for depreciation, depletion, amortization, and return, as a percentage of the cost new of the properties during the years 1938, '39, and '40, and in the lower part, to show the requirements for depreciation, depletion, amortization, and return on the assumption of a 30-year life and annual returns of 5, 6, 7, and 8 percent on the value, together with excess of present amount available for depreciation,

depletion, amortization, and return over these requirements.

Mr. Goodman: I offer Exhibit No. 2 in evidence.

Mr. Wheat: We would like to have the same ruling on that, Your Honor; it apparently is merely a mathematical calculation of the figures in Exhibit No. 1.

Trial Examiner: Very well, we will reserve ruling on the admission of the exhibit until the cross-examination is completed.

Mr. Baldridge: May the record also show that we make the same request, your Honor?

[fol. 51]. Trial Examiner: Very well.

By Mr. Goodman:

Q. Will you proceed, Mr. Toeppen, to explain the conclusions shown by Exhibit No. 2?

A. The fifth line shows that in 1938, the ratio of the amount available for depreciation, depletion, amortization, and return was 10.3 per cent of the first cost of the property at the end of the year, plus \$100,000 working capital allowance, and a similar figure for 1939, in terms of the average cost of plant, was 12.82 percent, and in 1940, 12.15 percent.

Then, in the group of items marked, or titled, "Annual Requirement for Depreciation, Depletion, Amortization and Return on Utility Plant," there is calculated the amount required for these items on the assumption of a 30-year life and the full rates of return of 5, 6, 7, and 8 percent.

In the next group of items marked "Return Requirement on Working Capital," same annual requirements, the annual requirement at the same rate of return for the working capital is determined; and in the group of lines titled "Total requirement," the requirement for depreciation and so forth on the plant and the return requirement on the working capital are added together to show the total requirement for depreciation, depletion, amortization; and return on both the plant and the working capital in the amounts shown in those lines, ranging from \$4,754,000, [fol. 52] for the year 1940, for a 5 percent return basis,—

to \$6,485,000, in 1940, for an 8 per cent return basis. These requirements are less than the amount presently available, shown in line 4, above, and the excess is shown in the last group of lines. For a 5 percent return, the excess amounts to \$4,118,000, in 1940, and for an 8 percent return,—to \$2,387,000 in 1940.

At the bottom of the page, there is a note explaining the basis for using a 30-year life for the depreciation, depletion, and amortization calculations.

The company's estimate as reported in the registration statement filed in 1940 showed a gas supply adequate for 25 years, and the field had been in use 8 years, which would give,—or rather, properly in use for 8 years,—which would give a total life of 33 years. To allow for shorter life of additions which have been made since 1932, and which may be made in the immediate future, and for the fact that they have been amortizing certain gas purchases and sales contracts on a 10-year basis,—I have used 30 years, rather than 33 years in this calculation.

Q. Is it your conclusion, Mr. Toeppen, and your testimony here, that if the Commission should find that an 8 percent return upon the property used and useful in the transmission of natural gas by Vanhandle Eastern and Michigan Gas Transmission Corporation, that if the Commission should find an 8 percent return a reasonable rate [fol. 53] of return,—then the present income of these companies is excessive by \$2,387,000?

[fol. 54] The Witness: That is my conclusion, subject to the modification that there would be some income tax adjustments if such excess were found to exist.

[fol. 55] I have made no attempt to determine the income tax adjustment which would follow a reduction of rates in this amount.

Trial Examiner: And with this further fact,—is it not true, Mr. Toeppen, that all of the information which you have assembled in Exhibits Nos. 1 and 2 for identification, is exclusively from the official reports to which you have referred, fundamental data, and you do not claim any



access to the books of the companies, and your survey and opinion are based entirely on these official records?

The Witness: Yes, and no, Mr. Examiner; because I have, as I will present in subsequent exhibits, certain other considerations which go beyond examination of the records in that they give me information about the properties such as I would have procured by directing my own employees to view and examine the property, and I have used this information in lieu of examination by my own employees.

Trial Examiner: Proceed.

By Mr. Goodman:

Q. Now, is it your conclusion and opinion that if the Commission should find a 7 percent rate of return to be a reasonable one for the property used and useful by Panhandle Eastern Pipe Line and Michigan Gas Transmission Company in its production and transmission of natural gas, that the excess over a reasonable return is shown by the figure of \$2,986,000?

[fol. 56] Q. And is it your conclusion that if 6 percent be determined to be a reasonable rate of return for the properties used and useful by Panhandle Eastern Pipe Line and Michigan Gas Transmission Company, the excess over a reasonable return is the amount of \$3,570,000?

A. That is correct, again subject to the income tax adjustment.

Q. And is it your opinion and conclusion that if a 5 percent return per annum should be found to be a reasonable rate of return for the property used and useful by Panhandle Eastern and Michigan Gas Transmission Company, the excess over such reasonable return is the amount of \$4,118,000?

A. That is correct, also subject to income tax adjustment.

[fol. 57] Q. And these opinions and conclusions concerning the excess returns are based upon the operating results for the year 1940?

A. That is correct.

Q. Now, you have qualified that conclusion by the question of income tax adjustment? A. Yes.

Q. Will you explain in what direction that income tax adjustment operates?

A. That income tax adjustment would increase the excess of present earnings over the required earnings.

Q. In other words—

A. (Interposing) If the revenues were reduced by an amount somewhat greater than the amount here stated, the amount of income taxes paid would be reduced in some amount depending on the present taxable income and the taxable income under the reduced revenues; and that would be the adjustment which would have to be made in addition to this reduction referred to heretofore.

Q. Now, directing your attention, Mr. Toepfen, to the figures which follow line 5, under the general caption, "Annual requirement for depreciation, depletion, amortization of and return on utility plant,"—"Annual rate of return, 5 percent,"—"Requirement 6.51 percent"—do you follow me? A. I do.

[fol. 58] Q. Now, will you explain how it is that a requirement for return, depreciation, depletion and amortization equal to 6.51 percent of the cost of the property will yield an adequate depreciation, depletion, and also a return of 5 percent?

A. It is the nature of interest, and of compound interest, that when you recover an investment through a number of years, that a small increment, being the rate of interest above the return requirement, will, throughout a series of years, recover the investment and provide a return on the unrecovered remaining part of the investment. For a 30-year life, this annual requirement amounts to 6.51 percent, of which, during the first year of life, 5 percent would go for return, and 1.51 percent for recovery of investment; during the succeeding years, the amount required for return would decrease as the investment is recovered, and in the last year, only 1/105th of the 6.51 percent would be interest, and the remainder of the 6.51 percent would be return on the unrecovered portion, with a constantly changing ratio during the intervening years.

Q. Now, looking at the figure of 8 percent, you indicate a requirement for depreciation, depletion, amortization,

and return equal to 8.88 percent of the first cost of the property.

A. That is correct.

Q. And is the same principle which you mentioned? [fol. 59] A. It is.

Q. Now, Mr. Toeppen, you have covered it, but I just want to make sure that it is emphasized or covered,—now, suppose that we put into this picture of a recovery of return, recovery,—that is, the yield of return and recovery of adequate amortization, depreciation, depletion,—at any point in its life history. Now, will such an income yield of 8.88 percent upon the first cost at any point in the life history yield 8 percent on the value of the property, all other conditions remaining the same, assuming that there is no change in value other than the depreciation which is being constantly recovered or the depletion which is being recovered?

A. That is correct. Possibly I can give a specific example of those relations.

Mr. Wheat: May the record show the name of the volume from which the witness is now reading?

Mr. Goodman: It will.

Trial Examiner: The record should show such reference.

The Witness: I am consulting a table, or publication, entitled "Engineering valuation" by Marson and Agg, published in 1936, and am on page 646.

Mr. Culton: Who is the publisher?

The Witness: McGraw-Hill.

(Continuing)—on page 606, in the bottom table, with the subheading "21-30 years probable life", in the last [fol. 60] column, "30 years",—let us go to it, and, by the way, this is an 8 percent table, as stated on the top of page 606,—let's go to the fifth year where the property is shown to have a value of 94.82 percent of the cost new at the beginning of the year, and of 93.52 percent at the end of the year, or a depreciation of 1.30 percent. Then, in that year, 1.30 percent of the 8.88 percent will be needed for depreciation, leaving 7.58 percent as an 8 percent return on the 94.82 percent value at the beginning of the year.

By Mr. Goodman:

Q. In other words, you assert the conclusion that 8.88 percent, under the conditions stated as to the expected life, will yield throughout, conditions other than the assumptions remaining unchanged; a return of 8 percent on the value as constantly depreciating throughout the years?

A. That is correct.

Q. Now,—

Trial Examiner: (Interposing) Is your testimony involving depreciation based on a company policy of these companies?

The Witness: The company policy, I think, is not clearly set forth in any manner that I have been able to ascertain. They have shown various appropriations in the registration statements, but there is no definite commitment as to the continuation of that policy.

Trial Examiner: What are your assumptions as a basis [fol. 61] for the depreciation testimony?

The Witness: My assumptions are that, based upon their statement as to the probable life in the field of 25 years from 1940, and an age of 8 years to 1946; there will be a total life of 33 years to the enterprise, and to allow for additions since 1932 and for the fact that they are depreciating or amortizing certain contracts on a 10-year basis, I have assumed a 30-year average life of the property in question.

Trial Examiner: What depreciation method did you follow?

The Witness: I have used the recovery of the investment on a compound interest basis during the life of the enterprise and return on the unrecovered investment. It is equivalent, and as a matter of fact, it is the basis of the often-used, so-called sinking fund method which is not, in truth, a sinking fund method, by which equal results may be obtained under the treatment I here use, and which is similar to that which prevails, for example, in connection with the paying off of a mortgage on your house in equal monthly installments during the life of the mortgage, where the monthly payment is divided into unequal

amounts and constantly changing amounts between return on unrecovered balance of the mortgage and the recovery of the mortgage.

Trial Examiner: Your method, then, is essentially the same as used by the California regulatory commission?

[fol. 62] The Witness: The answer is the same, although I do not go through the fiction of a sinking fund allocation; the answer is exactly the same as if you would use a sinking fund approach and use as your annual depreciation, the sinking fund allowance plus the accrued interest on the sinking fund.

Trial Examiner: Excuse the interruption, Mr. Goodman,—proceed.

By Mr. Goodman:

Q. Now, Mr. Toeppen, by using a percentage requirement like for 5 percent,—6.51 percent of the first cost,—I take it that it is not intended to vary the income yield, that is to say, the amount for return and depreciation, throughout the period?

A. As long as circumstances and conditions justify the 5 percent rate of return, the 6.51 percent will not change; if circumstances and conditions justify a change in the rate of return, then naturally the annual requirement will change.

Q. In other words, making the theoretical calculations, it is assumed for purposes of completion, or conformity to theory, that the 6.51 percent is an equal annual return throughout the life?

A. No, not a return, but a recovery which is divided between recovery of investment, and return on unrecovered investment.

Q. Right. Now, will you tell me why an assumption of [fol. 63] equal annual return is essential?

A. Because the cubic foot of gas which you will sell in the last year of operation of this property and the one you sell in the middle year and the one you sell in the first year are of equal value to the customer.

Q. In other words, for the purpose of setting up the calculation as you see it now, there is no difference in value for the annual delivery of service as between the first year and the last, is that right?



A. Or at any intermediate year.

Q. Therefore, they should sell for the same amount, is that right?

A. That is correct.

Q. Assuming the continuance of the same conditions?

A. Right.

Q. Now, you are familiar with the theory of depreciation known as the straight-line theory, which, in the proper application of the theory, depreciates the value of the property from the initial amount in equal annual amounts? A. I am.

Q. Now, if you were to take an item of property having an initial value or cost of \$100 and a life of 10 years, and for the sake of convenience, it has no salvage, what would the requirement for depreciation and return be, for the first year?

[fol. 64] A. On a straight-line basis?

Q. On a straight-line basis.

A. On the assumption that you could reconcile the straight-line basis, which is fundamentally the case of a compound interest or sinking fund treatment, at zero percent return, with a result of return which is inconsistent in itself, I suppose you would make that reconciliation, —then, the requirement for a 10-year life will be 10 percent to depreciation and—what rate of interest?

Q. Six percent.

A. And a 6 percent rate of interest would be 6 percent for the return, making it 16 per cent for return and depreciation during the first year.

Q. Well, now, let us suppose, then—

Q. (Interposing) For the sake of simplicity, put it on a \$100 basis, and that would be 10 per cent or \$10 for depreciation, and 6 per cent or \$6 for interest, making a total for return and depreciation of \$16.

Q. Now, let us suppose that we had confidence in that theory and we then, at the end of the first year, had a remaining value of \$90 and proceeded to use the \$90 as a rate basis. What then would the requirement be on that assumption for the depreciation and return during the second year?

A. You would need 10 per cent, or \$10, of the first cost as depreciation, and 6 percent of the remaining value

[fol. 65] of \$90, or \$5.40 for a return, making a total of \$15.40, as compared with \$16 for the first year.

Q. Now, what is wrong with the picture?

A. Well, the older the property got, the cheaper you would buy your gas.

Q. Right, or if you were delivering goods in freight cars,—then what?

A. The older the railroads got, the cheaper you would get your transportation.

Q. Is that right, in your opinion?

A. I have always thought that the same service was worth the same money, no matter how old the taxicabs are, or the railroads, or anything that the riders use.

Q. Do you visualize a customer as paying less for the use of an old freight car than he would for a new one?

A. No, I do not think you could induce anyone to pay one rate for riding in a brand new taxicab and pay another rate for an old taxicab which might be sold to the junk dealer tomorrow.

Q. Would gas have a different value if it were delivered through old pipes, or new pipes?

A. No, it would do the same amount of cooking or house-heating, no matter how it got there.

Q. Is there anything more that you care to say about Exhibit No. 2?

[fol. 66] A. I think that covers Exhibit No. 2 very thoroughly.

Mr. Goodman: Please mark this paper which I present as Exhibit No. 3 for identification.

(The document referred to was marked as Exhibit No. 3 for identification.)

By Mr. Goodman:

Q. Mr. Toeppen, will you identify the paper marked as Exhibit No. 3?

A. Exhibit No. 3 is an extract from a registration statement filed by Panhandle Eastern Pipe Line Company on February 12, 1937, with the Securities and Exchange Commission, and included in their File No. 2-2867-1-1.

Q. And what comment do you make concerning the use that you made of Exhibit No. 3?

A. This exhibit, which contains a statement at the end of the second paragraph marked with double black lines

in the two margins, contains this statement: "And after giving consideration to all known factors affecting the future supply and probable demand, the Issuer will be able to obtain supplies of natural gas sufficient for its market requirements for a period of not less than 25 years."

I used this in lieu of an independent investigation of the gas reserves under the control of this company, it being their statement included in their registration statement, and I made it a part of my report and the basis of my [fol. 67] conclusion as to the life of the reserves. Incidentally, I possibly could have included with it a copy of another sheet of the registration statement which was a letter from Ralph E. Davis, Inc., engineers, of Pittsburgh, stating that they concurred in the statement made in the registration statement with respect to such reserves.

A. (Interposing) May I add something to that, and in view of the fact that the property of the Michigan Gas Transmission Company is an integral part of the means of delivering gas to Detroit, or to customers east of Dana, Illinois,—I have used the probable life of the gas supply [fol. 68] which controls the useful life of a pipe line as measuring the probable life of both the Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Company properties.

Q. Now, Mr. Toeppen, you examined the registration statement of Panhandle Eastern Pipe Line Company filed with the Securities and Exchange Commission on February 12, 1937, in File No. 2-2867-1-1, in re gas reserves?

A. That is right.

Q. And Exhibit No. 3 was secured in what manner?

A. By photostating the page marked "3" in that registration statement.

Q. And do you know that it is a true copy of the filed registration statement?

A. It is.

Q. And, did you make use of the information, herein contained to develop your information concerning the probable service life of the property here in question?

A. I did; I used this information the same as if I had, at that time, had occasion to go out and engage a person

or engage the person who made up these statements, to make such a study for me, and assumed that the statements would be identical with the report made to the company.

Mr. Goodman: I offer Exhibit No. 3 in evidence.

\* \* \* \* \*

[fol. 69] Trial Examiner: The ruling as to the admission of this proffered exhibit will be reserved until opportunity for cross-examination has been given.

Mr. Goodman: Will you please mark this paper as Exhibit No. 4 for identification, and I have here three copies, each consisting of three sheets:

(The document referred to was marked for identification as Exhibit No. 4.)

By Mr. Goodman:

Q. Will you please identify the paper marked as Exhibit No. 4?

A. Exhibit No. 4 is a photostatic copy of pages 17 and 18 of a registration statement filed by the Panhandle Eastern Pipe Line Company with the Securities and Exchange Commission on November 13, 1940, and filed by them in File No. 2-4579-1-1.

[fol. 70] Q. What use, Mr. Toeppen, or fundamental data did you prepare from the information contained in Exhibit No. 4?

A. This exhibit is a copy of a letter from Ralph E. Davis, Inc., Engineers, Pittsburgh, to the Board of Directors of Panhandle Eastern Pipe Line Company under date of November 12, 1940; relating to the ownership of gas properties or leases or contracts in the Panhandle field of Texas, the Amarillo field of Texas, and the Hugoton field, of Kansas. My particular interest was in the items marked "A" to "G," which are Mr. Davis', or the Davis company's, conclusions as to the reserves controlled by Panhandle Eastern in these various portions of the two fields.

Mr. Wheat: Mr. Goodman, I take it that the witness, himself, added those letters, "A" to "G"?

Mr. Goodman: That is right.

The Witness: I have summarized the reserves in thousands of cubic feet, set out in the various paragraphs at the marked points,—on the third sheet of the exhibit. They total, for both fields, 2,491,977,000 thousand cubic feet, as of the date of the report, in 1940. I have then provided that by the annual capacity of the pipe line, at 100 percent load factor, using the capacity stated in the 1940 report of 250,000 thousand cubic feet per day for that purpose, dividing that 91,250,000 thousand cubic feet into the reserves, indicates a life of 27.4 years from 1940, on, [fol. 71] for the reserves under the control of the Panhandle Eastern at the time of the report.

I have used this report in the same manner as I would use a report, had I employed Davis and Company to make such a survey for me at that time.

Q. And would you have confidence, Mr. Toëppen, in the report of Ralph E. Davis, Inc., Engineers?

A. I think I would consider the employment of Ralph E. Davis, Inc., by Panhandle Eastern as a very high recommendation.

Mr. Wheat: May I ask a question, at this time?

I think, that in arriving at your calculations on the attached third page of this exhibit, No. 4 for identification, you assumed a static condition in connection with sales of gas by this company?

The Witness: I assumed, as I stated, Mr. Wheat, sales amounting to the capacity, present capacity, of the pipe line at 100 percent load factor.

Mr. Wheat: Well, did you make any assumptions with respect to the static, or otherwise, nature of the withdrawals of gas from the Amarillo and Hugoton gas fields by companies other than the defendant Panhandle Eastern Pipe Line Company?

The Witness: I assumed that Panhandle Eastern would adequately protect their proportionate right in these fields by arranging the proper withdrawals from the wells so that [fol. 72] they would have no losses by having their reserves drained by others.

Mr. Wheat: And those two statements—



The Witness: (Interposing) And I must assume that Mr. Davis' conclusions were based on the same assumption.

Mr. Wheat: Now, regardless of the Davis conclusions, to be sure how you arrived at this,—I take it, then, that you did not make ~~any~~ calculations based on any change in the amount of gas withdrawn from the Amarillo field or the Hugoton field during these future years by persons other than this defendant, is that correct?

The Witness: I based my conclusions on the final paragraph of Mr. Davis' statement, where it says, "The reserves are, we believe, sufficient to meet the combined anticipated requirements for pipe line, carbon black, and other uses for a period of more than 25 years."

"The combined gas supply controlled by your company in the Amarillo and Hugoton fields is, in our judgment, adequate to supply its present markets and any reasonably anticipated increase in the gas requirements of said markets for a period of more than 25 years."

To be on a very safe side, I used a 100 percent load factor, amounting to 91,000,000, rather than—I think it is 54,000,000-odd, which the company transmitted last year.

Mr. Wheat: Well, I wonder if you would mind answer-  
[fol. 73] ing the question which I asked.

The Witness: I believe I answered the question.

[fol. 74] By Mr. Goodman:

Q. Mr. Toeppen, you considered Mr. Davis' report and statement as indicating the controlled gas areas of the Panhandle Eastern Pipe Line Company, is that right?

A. I did.

Q. Now, you then, for the purpose of your own calculations, looked to the maximum possible take with the existing facilities?

A. I did.

Q. You then concluded that on the basis of Mr. Davis' statement of the control of reserves and the maximum possible take with the existing facilities, the probable life of the supply would be 27.4 years?

A. That is correct.

Q. Now, in making these calculations—and this is Mr. Wheat's question,—did you consider that some other person apart from Panhandle Eastern would increase their take in and about those fields?

A. I considered that if that condition existed, that it had been properly taken into account by Mr. Davis in his conclusion.

Q. In other words, you accepted Mr. Davis' figure of what Panhandle Eastern had under control and you did not pay any attention to the possibility that that might happen in other parts of the field, or anything else,—is that right?

A. I did pay attention to the possibility that other companies possibly might be draining gas out from under Panhandle Eastern's controlled territory: but I had to assume that, in making a statement as to the available reserves of this company, Panhandle Eastern, that Mr. Davis had made similar considerations and that his figures [fol. 76] had been properly executed for that risk, and that this was a net available to this company, according to the Davis report.

Q. All right, now, I wonder if that—

Mr. Wheat: I am sure that answers my question.

Mr. Goodman: I offer Exhibit No. 4 in evidence.

Trial Examiner: The same ruling with reference to its admission.

Mr. Goodman: Will you please mark this paper which I present as Exhibit No. 5 for identification?

(The Document Referred To Was Marked For Identification as Exhibit No. 5.)

Mr. Goodman: I am presenting three copies of Exhibit No. 5 for identification to the Commission, and Exhibit No. 5 consists of two sheets.

By Mr. Goodman:

Q. Will you please identify Exhibit No. 5?

A. Exhibit No. 5 is a photographic copy of pages 19 and 20 of a registration statement filed by Panhandle East-

ern with the Securities and Exchange Commission on [fol. 77] November 13, 1940, and by them placed in File No. 2-4579-1-1.

Q. Will you state what use you made of Exhibit No. 5 and the information therein contained?

A. Exhibit No. 5 is a report by P. McDonald Biddison, consulting engineer, Dallas, under date of November 2, 1940, to the Board of Directors of Panhandle Eastern Pipe Line Company, dealing with various aspects of the Panhandle properties, and I paid particular attention to the second page on which I have marked the first paragraph with lines in each margin.

Q. Will you state what they amount to, Mr. Toeppen?

A. Beginning on the fourth line, there is a statement concerning the property,—“The compressor stations on the main system are carefully designed, their equipment is first class in all respects, they present a neat and attractive appearance and are maintained in excellent condition. All these features tend to produce reliability and economy of operation. The main transmission system has been constructed with a margin of safety as to pressure so that it may safely be operated at 500 pounds compressor station discharge pressure. Stream crossing locations”—

Mr. Baldridge: (Interposing) He is reading now from the report and I will have to make a statement which I have made as to the two preceding exhibits.

Now, can it be understood that if he reads it into the [fol. 78] record that it be in the record subject to being stricken out at the time the other exhibits are passed upon?

Trial Examiner: Very well, we will have that understanding.

May I ask what is the source of what you are reading? Is that part of the same exhibit?

The Witness: It is the second page of the same exhibit.

Trial Examiner: You may proceed, with that understanding.

The Witness: It is the paragraph marked with parallel lines. (Continuing):

"—Stream crossing locations have been carefully selected and multiple lines across streams so located and installed as to leave very slight probability of interruption at such locations. The transmission lines have been well located and well laid to secure stability and are carefully maintained. The main line loops completed in 1937 provide additional protection against service interruption and this protection will be enhanced by the loop extensions recently completed and by those now under construction. The Gasoline Plant at Liberal is of modern design, and the dehydration plant in connection with it is an effective preventive of interruptions of service from freezing of lines. Measuring and Regulating Stations are of up to date equipment, are carefully maintained and the stations are neat and clean. Little evidence of deterioration in the main line property can be found. Pipe exposed in making connections for 1937 and 1940 additions did not [fol. 79] indicate interior corrosion. Flow tests of the main lines in 1937 and 1938 showed some fouling or corrosion of the old lines westward from Olpe Station to Liberal Station."

Mr. Wheat: May I ask whether the witness did not make an error and say "fouling or corrosion" instead of "fouling, not corrosion"?

The Witness: It should read, "showed some fouling, not corrosion of the old lines westward from Olpe Station to Liberal Station. This condition has been effectively remedied as evidenced by subsequent flow tests and by capacity obtained under routine operations. Routine reports show little deterioration of protective coating and pitting of pipe except in a few very restricted areas. Such areas are being protected cathodically as they develop."

[fol. 82] By Mr. Goodman:

Q. Mr. Toeppen, did you personally check the original of Exhibit 5 in the files of the Securities and Exchange Commission?

A. I read Exhibit 5 in the files of the Securities and Exchange Commission before I ordered a photostat made.

Q. And is Exhibit 5 a true copy of what it purports to be? A. It is.

Q. And the information that you pointed out, concerning the condition of the property as reported by P. McDonald Biddison, consulting engineer, and as filed with the Securities and Exchange Commission by Panhandle Eastern Pipe Line Company, did you depend upon that report?

A. I did, as if I had instructed Mr. Biddison to make a similar examination for me of the same features there reported on.

Mr. Goodman: I offer Exhibit 5 in evidence.

Trial Examiner: The ruling on admission will be deferred until the completion of cross-examination.

[fol. 83] By Mr. Goodman:

Q. Now the figures which you have used and the conclusions which you have drawn are predicated upon reported cost figures, are they not? A. They are.

. . . . .

[fol. 85] By Mr. Goodman:

Q. Mr. Toeppen, have you made any allowance in the figures specifically for going value as a separate item?

[fol. 86] A. No.

Q. Will you state why you did not?

A. The figures for cost of gas plant and for costs of other plants as summarized in the annual reports of the Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Company purport to be in accordance with the system of accounts for natural gas companies described by the Federal Power Commission and that system of accounts requires and, therefore, I must assume that the reports report the actual disbursements for material, labor, services and all other elements entering into the construction of the properties of these two companies.

These costs, in the first place, are costs of these materials, labors, services, easements, and so on, on the open market and are costs for merchantable goods, that is, goods capable of being sold and resold as goods of their own particular character, that is a ton of pipe is bought as a ton of pipe and can be used for any purpose whatsoever or sold again as a ton of pipe. Labor of various grades, ditch diggers, welders, truck drivers and all the other forms of labor are bought as unapplied labor which



can be applied to the company to any purpose whatsoever or possibly at the time sublet to others, for use in other performances of other duties, services of engineers, superintendents and others who are similarly free to be used [fol. 87] anywhere prior to the construction of this property and they are used in assembling this merchantable material into an operating gas transmission property and gas-producing property and they are assembled in view of their prospective future earning ability, either estimated in view of the cost of the thing and its prospective revenues or in view of the prospective revenues and a justifiable total cost.

When the property represented by the recorded cost has been assembled from the constituent merchantable materials and unapplied labor into the operating gas transmission and gas-producing property it no longer has values as separate items of merchantable material or merchantable labor and services, it has a value only as an operating gas property. It cannot be recovered or valued as at the current price of its component materials, labor and services as merchantable commodities.

If it were not operated as a gas transmission and gas-producing property, it would have only a merchantable cost equal to the recoverable junk value of the material; the labor used in assembling and the labor used in supervising and engineering the property would be irretrievably lost and its value as a non-operating property would be only junk, far less than the cost as reported in the records of the company.

The difference between the amounts reported as ex-[fol. 88] pended for merchantable material and merchantable labor and merchantable services and the junk value of the property now recoverable is the going value of the enterprise.

Mr. Goodman: I present for identification and hand to the Commission three copies of a paper which I request be marked Exhibit 6 for identification.

(Document referred to was marked Exhibit 6 for identification.)

By Mr. Goodman:

Q. Will you please identify the paper marked Exhibit 6?

A. This is a calculation designed to show the estimated operating expenses and taxes during 1940 on the assumption that the system were operated at a hundred percent load factor and at capacity.

Q. Now, you wanted to make a little correction on one of the figures there, did you?

A. I do. In the last column in the first line, it should read 84 instead of 81 and the line entitled—

Trial Examiner: (Interposing) Eighty-four thousand instead of eighty-one thousand?

The Witness: Yes. In the line entitled "Total Natural Gas Production" it should read 226,000 instead of 223,000. In the line "Total," it should read 926,000 instead of 929,000—

[fol. 90] By Mr. Goodman:

Q. Now, reserving the right to substitute a corrected Exhibit 6, will you proceed to state the general result shown by the exhibit?

A. In this exhibit I undertake to estimate along very broad lines the probable cost of conducting operations in 1940 if the system had delivered 91,250,000 cubic feet instead of 54,116,325 that it did handle. I should say "transmitted" rather than "delivered," because this is an import.

I did that by increasing those items expensed which were more or less directly related to the quantity of gas transmitted by the ratio of the 54,000,000,000 cubic foot to the 91,000,000,000 cubic foot which is a ratio of 1.686.

For the item, "Net Credit for Residuals Produced," I used only one-half of that ratio because I did not have the details of the operation of the recovery plant and there would be some constant expenses in that item. That is the only one where I modified the ratio. On that basis the operations in 1940 would have amounted to 6,476,000 instead of 5,719,301 that they did amount to for the two companies together.

Q. Mr. Toeppen, state whether you developed in this exhibit, Exhibit 6, that if this company were to operate at its capacity with the existing facilities, of course, and constantly, it would result in annual operating costs of [fol. 91] \$6,476,000?

A. Approximately that amount.

Q. Yes. And do you show the quantity of gas that would be delivered annually at that cost?

A. Not the quantity delivered, but the quantity which would be fed into the system.

Q. Yes.

A. Some of that would be used in transmission and the small amount would be unaccounted for.

Q. And what is that figure?

A. 91,250,000 cubic feet.

Q. And what is the significance of the two figures which I mention, namely, the expense of \$6,476,000 and the quantity of gas which you mentioned?

A. Those figures, by themselves, as yet have no significance. They must be combined with the requirements of the capital investment for return and depreciation.

Q. Yes, but what does it lead up to, anyway?

A. It leads up to the cost of supplying gas under 100 percent load factor condition.

Q. Now, will you state whether or not that would be an ideal object to attain?

A. That is what any company operating a property of this kind would like to attain, if they possibly could.

Q. In other words, it utilizes their full capacity?

(fol. 92) A. It does, just like the hotel keeper would like to have all the rooms in his hotel rented every night.

Mr. Goodman: With the privilege of substituting for correction of figures, I offer Exhibit 6 in evidence.

Trial Examiner: The ruling on admission will be reserved until the completion of cross-examination.

Mr. Goodman: I present three copies of a paper which I request be marked Exhibit 7 for identification.

(Document referred to was marked Exhibit No. 7 for identification.)

By Mr. Goodman:

Q. Will you please identify the paper marked Exhibit 7?

A. Exhibit 7 is a compilation continuing the compilation of Exhibit 6 to reduce the operating cost, plus depreciation and return requirements, to a cost per thousand cubic foot of gas. In it I start with the figure from Exhibit 6 of \$6,476,000, which is, again, a correction from the figure shown and I add to it the requirements determined in Exhibit 2 for depreciation and return in the amounts there shown in the third group of lines ranging from 11,230,000 corrected, to 11,778,000, corrected, 12,362,000 and 12,961,000 as the amounts acquired for operating expenses, depreciation and return on the bases shown at 100 percent load factor and capacity use of pipeline.

[fol. 93] Mr. Culton: There are not enough exhibits to go around. Does that assume 100 percent load factor?

The Witness: It does.

Mr. Culton: During the entire life of the plant?

The Witness: Yes.

Dividing these amounts by the 91,250,000 cubic feet, we arrive at a necessary price of 12.3 cents for a 5 percent return, 12.9 cents for—

Mr. Baldridge: (Interposing) If Your Honor please, may I reserve my objection to be ruled on at the same time?

Trial Examiner: You may.

Mr. Wheat: We should like to have the same ruling.

Trial Examiner: Yes, you will have ample opportunity to cross-examine on these exhibits before they are received in evidence.

The Witness: (Continuing) —12.9 cents for a 6 percent return, 13.6 cents for a 7 percent return and 14.2 cents for an 8 percent return on the basis of gas delivered to the transmission system; on a basis of the gas delivered to customers the figure would be slightly higher to allow

for gas used in transmission and for gas used as gas un-  
[fol. 94] accounted for.

Mr. Culton: May I inquire, you say transmission to customers. Do you mean customers of the distributing company or customers of the pipeline company or customers of the Michigan Gas Transmission line?

The Witness: I mean customers of the Consolidated Pipe Line System.

Mr. Culton: Two?

The Witness: Right.

Mr. Culton: You refer, then, to the customers as being the city distributors?

The Witness: Yes, sir.

Mr. Culton: And not the ultimate consumer?

The Witness: Not the ultimate consumer.

Mr. Culton: O. K.

The Witness: This would be the city gate rate.

By Mr. Goodman:

Q. I take it that if the Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Company, together, were to make a price of 14.2 cents per thousand cubic feet of gas and if, as a result of that price, they were to achieve 100 percent load factor they would, in your judgment, be earning 8 percent upon the book cost of their property?

A. They would be earning 8 percent upon the remaining cost of their property.

Q. Yes?

A. Subject to the adjustment of that 14.2 cents for the difference between gas put into the system and gas delivered to customers.

Q. Well, of what magnitude would that adjustment be in general?

A. Very small. It should not exceed probably 5 percent.

Mr. Goodman: I offer Exhibit 7 in evidence.



Trial Examiner: The ruling on admission will be deferred. It is understood, again, that the substituted Exhibit 7 will be brought in.

The Witness: Yes.

Mr. Goodman: Yes.

I present a paper and hand up three copies and I request that it be marked Exhibit 8 for identification.

(Document Referred To Was Marked Exhibit No. 8 For Identification.)

By Mr. Goodman:

Q. Will you please identify Exhibit 8?

A. Exhibit 8 is an estimate of the probable revenue and income if the system were operated at capacity, 100 percent load factor and the Michigan Consolidated Gas Company rate were applied to all the sales without adjustment [fol. 96] for the difference between the gas put in and gas delivered.

The Michigan Consolidated schedule rate gives a cost of .0275 dollars or two and three-quarters cents per therm at 100 percent load factor. This is equal to 26 cents per thousand cubic foot as calculated.

Applying this to the 91,251,000 cubic feet will give a revenue of \$23,725,000. Deducting the \$6,476,000, which is a correction against the \$6,473,000 written here determined in the previous exhibit, will leave \$17,249,000 for depreciation, depletion, amortization and return without correcting for income tax changes which is at the rate of 23.6 percent on the average cost new of the property in 1940.

[fol. 97] By Mr. Goodman:

Q. You mean, Mr. Toeppen, that if the gas company were to sell all of its gas substantially at the same fundamental contract price as they sell to Michigan Consolidated Gas Company, namely demand charge of 38 cents per therm per month, measured as they measure it under that contract, and a commodity charge of one cent and a half per therm the return will be approximately 23.6 percent per year if they have 100 percent capacity operations and 100 percent load factor?

A. That is correct, subject to the adjustment for the difference in gas measurements put in and taken out and subject to the income tax correction.

Q. Yes.

Mr. Culton: May I ask another question in connection with that table? What did you consider to be the 100 percent load factor, daily, for the 365 days in the year from the beginning of the plant?

[fol. 98] The Witness: I will calculate this on the basis of the present plant and the present operation.

Mr. Culton: All right, but what did you consider to be the present 100 percent load factor which was the basis for your tabulation?

The Witness: Two hundred fifty thousand thousand cubic feet a day.

Mr. Culton: Two hundred fifty million cubic feet a day, in other words?

The Witness: Yes.

Mr. Culton: And what day was that ever produced?

The Witness: I used your stated capacity in your annual report.

Mr. Culton: That is what you consider as the load factor, is it?

The Witness: I consider that as the capacity of the line.

Mr. Culton: All right.

The Witness: And a hundred percent load factor means operate at rated capacity of a device continuously.

Mr. Goodman: I offer Exhibit 8 in evidence.

Trial Examiner: The ruling on admission will be reserved.

By Mr. Goodman:

Q. In your general experiences, as outlined, dealing [fol. 99] with your work and studies of proper rates for various public utilities, have you had occasion to give consideration to the fair rate of return? A. I have.

Q. Will you state the factors which you deemed proper to be considered in developing a fair rate of return?

A. The factors involved in the determination of a fair rate of return are first of all the risks to which the business is subject and the way in which the costs incident to the incurrence of those risks are dealt with and then after each risk has been taken care of, either specifically or generally, the return on a risk, less investment at that time. The risks of a business may be taken care of in two ways; they may be either commuted into a current cost or they may be allowed to fall into the return which is not specifically distributed as a cost. For example, you have the choice as to whether you will run the risk of the burning down of your home or of the property you are leasing and renting to others and take all of the rent as a return or you may buy fire insurance and decrease your return and avoid the risk of losing your investment.

Q. In other words, the process of insurance means the purchasing of certainty at a cost?

A. It does. This is practiced in many, many phases of utility business or other business generally and in the [fol. 100] gas production and transmission business as well as in other business.

Q. Well, would you care at this time to mention some of the risks incurred in the conduct of a business which are secured or converted or commuted into certainties at a cost or relative certainties?

A. Yes, for example, in Exhibit 5, I think it was, in Mr. Biddison's report, there are statements as to the manner in which this pipeline and the stations were constructed to avoid the risks of interruption to service. Here the risks of interruption and the risk of continuance of return have been commuted into a capital cost rather than being allowed as a part of the return.

The company, after it has once constructed its pipeline, does not leave it subject to the mercy of the elements but inspects it and maintains it and repairs it continually, thereby converting the risk of its failure due to wear and tear into a cost of operation.

The company pays social security insurance, which is one means of stabilizing its labor relations and preventing interference with its operation through failure of labor

supply and it also, I can assume I believe, pays a rate of wages which will attract a competent and reliable personnel rather than paying minimum wages and running the risk of interruption to service from the low wage rate that [fol. 101] they would pay under those conditions.

It, insofar as is applicable, carries appropriate fire insurance either outside or through a self-insurance provision and I have no occasion to check, but it is reasonable to assume that they carry the usual public liability and employee liability insurance to minimize or commute the costs incident to those risks of employee or public injury or to defalcation of employees handling funds.

Q. Now speaking generally, Mr. Toeppen, is it a frequent incidence that risks are taken care of or commuted by costs and the claim is made that they still exist as risks, when it comes to consider the rate of return?

A. That is frequently done, because the relation between inclusion of cost of meeting risks or accruing for meeting of risks, say in the form of insurance, is in their minds not associated with the level of the rate of return applicable to the risks remaining after those provisions are made.

Q. What is the effect so far as the resultant quantum of risks is concerned of a public utility following the general and usual prescribed forms of accounting in regard to its expenses and maintaining adequate reserves in accordance with the usual prescriptions?

A. If those reserves and provisions, and they are not in the form of reserves because many are either by capitalization as I pointed out at an adequate improved rate of construction—

Mr. Culten: (Interposing) Are you talking about this company now?

The Witness: I am talking about this company, yes. I had reference to Exhibit 5 in which Mr. Biddison reported on the high grade of construction and special care taken in river crossings and other practices to prevent interruption to service.

Mr. Baldridge: I take it your comment does not apply to Michigan Gas Transmission Corporation?

The Witness: The comment is not based upon this specific case, but a parallel based upon my general acquaintance with the practices of corporations generally is that all such proper and justifiable provisions are made and I believe have been made in the case of Michigan Gas Transmission Company.

. . . . .

[fol. 103] Mr. Goodman: I present a paper consisting of three sheets and I request that it be marked Exhibit 9 for identification. I am handing three copies to the Commission.

(Document referred to was marked Exhibit No. 9 for identification.)

By Mr. Goodman:

Q. Will you please identify the paper marked Exhibit 9?

A. Exhibit 9 is a statement setting forth the nature of the factors affecting the nature and magnitude of the report of net incomes.

. . . . .

[fol. 104] Q. Does Exhibit 9 state the major factors which you have considered in coming to your conclusion as to the proper rate of return? A. It does.

Mr. Goodman: I present a paper which I request be marked for identification as Exhibit 10 and I am handing three copies to the Commission.

(Document referred to was marked Exhibit No. 10 for identification.)

By Mr. Goodman:

Q. Will you please identify the paper marked Exhibit 10?

A. Exhibit 10 is a tabulation to show the effect of variation in accounting practices on reported incomes of an enterprise.

. . . . .

[fol. 105] Q. The figures on Exhibit 10 and the example is offered merely for illustrative purposes, is it not?

A. It is.



Q. Is it necessary to make any explanation?

A. I think the exhibit speaks for itself, that the manner in which you account for certain costs determines the magnitude and character of the rate of return which is to be allowed in considering the enterprise.

Q. Is there any farther comment that you care to make as to the bearing of the example in Exhibit 10 on the general subject of rate of return?

A. Yes, there is this: That if one company accounts for its incomes in a manner similar to Plan A, it will be justified in asking for a higher rate of return than if it accounts for them under Plan B where it has commuted all its risks or many of its risks to an expense rather than [fol. 106] to be met out of the return allowed in the rate-making procedure.

Mr. Goodman: For the purposes mentioned, I offer Exhibit 10.

Mr. Wheat: Holding the ruling open on that, Mr. Examiner, may I ask one question for clarification?

Trial Examiner: Surely.

Mr. Wheat: Do I understand that it was your previous testimony that Panhandle Eastern Pipe Line Company reports and that you assume that it reports to this Commission on the basis of the general accounting practices which have been set up by this Commission for natural gas companies?

The Witness: I do.

Mr. Wheat: Well, under Plan A or Plan B is it prepared?

The Witness: There is a latitude of choice left under that system of accounts and the company reports, as far as I can discover from the annual reports, partially on Plan B and partially on Plan A. Certain provisions for risks which are in many companies treated as an operating expense before the determination of gross income are by this company treated as a deduction from gross income.

Mr. Wheat: On Exhibit 10, the only difference is in the item of insurance, is it not?

The Witness: Or other provisions against risk.

[fol. 107] Mr. Wheat: On Exhibit 10 the only difference is in the item of insurance, is it not?

The Witness: "Insurance and so forth," I may point out which covers all other forms of risk which have been commuted or may be commuted.

Mr. Wheat: That is the only "and so forth" on the whole exhibit, isn't it?

The Witness: Correct. That is the entire point I want to make, Mr. Wheat, that if you commute risks into costs to insurance or insurance-like processes in which I include inclusion of incurred actual expense either of actual disbursements to meet matured risks or accruals to meet future risks then you have a different treatment in the way of a rate of return than if you don't make such provisions in operating expenses.

Mr. Wheat: Well, whatever point you want to make, what does Panhandle Eastern Pipe Line Company do with respect to "and so forth" on Exhibit 10?

The Witness: I have stated that as far as I can discover from the annual reports it splits its treatment. For example, the provision for uncollectible bills is apparently made out of income and not as an operating expense.

Mr. Wheat: You do not know that, do you?

The Witness: I have consulted the registration statement and I say the figures therein show that it is apparently [fol. 108] treated as a deduction from income.

Mr. Wheat: Do you know whether or not that is true?

The Witness: Only insofar as the registration statement speaks for itself.

Mr. Wheat: What other items are covered under your theoretical "and so forth" under Exhibit 10 in reference to Panhandle Eastern Pipe Line Company?

The Witness: I cannot tell you because we have not had a detail operating expense statement of the company. I am only offering this to indicate that consideration must be given the treatment by the company, whatever it may be must be reflected in determining the rate of return allowable.

Mr. Wheat: Now, Mr. Toeppen, in the item of insurance, what does the Panhandle Eastern Pipe Line Company do that is not proper under the system of accounts of the Federal Power Commission?

The Witness: I did not say they did anything which was not proper. I said a latitude of choice was offered them as how certain costs are treated under that system.

Mr. Wheat: Well, what does it do, then, that makes it pertinent to your purported Exhibit 10?

The Witness: I made no statement as to what Panhandle Eastern does, I simply say that the question of what is done which is not fully determinable from the annual reports has a bearing on the magnitude of the rate of [fol. 109] return to be allowed.

By Mr. Goodman:

Q. Have you been able to make any analysis, Mr. Toeppen, of the size of the provision for identifiable risks in operating costs in relation to the size of the investment of Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Company?

A. I have not, sir.

Q. And why have you been unable to do so?

A. The operating expense statement included in the [fol. 110] annual report as filed with this Commission is not in sufficient detail to permit identification of specific provisions for risks and association with the particular investment concerned in that risk.

Q. Will you illustrate how different maintenance practices of companies engaged in the same business following the same accounting practice may affect the value of any comparison of their respective net earnings as shown by their books?

[fol. 111] By Mr. Goodman:

Q. Will you illustrate how different maintenance practices of companies engaged in the same business and following the same accounting rules may affect the value of any comparison of their respective net earnings as shown by their books?

A. One company may make all necessary repairs very promptly and, you might say, even in advance of serious deterioration of its property and thereby prevent the need of large replacements at a later date. Another company may choose to let maintenance accumulate and make its repair through a replacement of a major unit rather than by constant repairs prior to the stage at which a replacement must be made. The one would show a high maintenance cost and the other would show a low maintenance cost, but the first one would have a low depreciation requirement and the second one would have a high depreciation requirement.

Q. And what would you say about variances in the depreciation policies as affecting the real returns and the [fol. 112] proper rate?

A. If a company uses either a so-called retirement policy of treating depreciation or the straight line method of providing for depreciation, its reported operating results will be distorted from those which would prevail on the basis of using a proper depreciation provision in my testimony today.

If it used a straight-line method, its earnings during early days, that is when the property was of an age less than half of its life, it would be understated because excessive provisions for depreciation had been made in those years and during the latter half of its life, its earnings would be overstated because not sufficient provision was being made on a retirement basis, also a distortion would occur, being overstated in earlier years, the depreciation being understated and the profits overstated in the earlier years.

Q. Now, have you taken into consideration the effect upon risks in general due to inadequate maintenance policies or whatever they may be or depreciation policies which is created by the use of the particular service life which you have applied?

A. I don't quite understand your question.

Q. Well, in other words, do you expect that there is some risk here of the property wearing out?

[fol. 113] A. As far as the major part of the property is concerned, I should judge from Mr. Biddison's report that

the property will not wear out prior to the exhaustion of the gas supply.

Q. So that when you use the service life which you have applied here, what does that allowance do toward eliminating various risks?

A. It, you might say, brackets all the risks which would tend to mature at a point beyond the life adopted. In other words, if there is a risk which would destroy this property in 40 years, that risk is practically excluded by the controlling risk that the field would fail in 30 years. The actions are parallel, not cumulative, and the shortest controls.

Q. So that, when you were using for property of this character a service life of 30 years, is there reasonable certainty that that 30-year income that we have figured upon is in sight?

A. If it were not, then the investments made in the pipeline would have been ill advised.

Q. Well, what do you think as to whether or not a 30-year income is in sight?

A. According to the reports which I have introduced in evidence which are, I take it, by the fact that they were made on behalf of the Panhandle Eastern Pipe Line Company, [fol. 114] made by competent engineers, there is a supply of over 30 years from the inception of the program in sight.

Q. Now, in what manner does the use of the 30-year life affect the question of probable obsolescence of gas as a fuel?

A. I don't quite—

Q. (Interposing) Well now, suppose that somebody were to present an argument that other types of fuel utilization may be discovered in the future through scientific research, to what extent is that question or speculation answered by the statement that "Well, we are only figuring on 30 years"?

A. If that condition can't be expected to materialize before the 30 years are up, it is of no consequence.

Q. Now, conditions of progress in the arts and so forth, just how are they, are the risks of depreciation due to them eliminated by using a short life like the 30 years?

A. Using a short life avoids the risks of improvement which may appear after 30 years and leaves you faced only



with those that would occur during the immediate 30 years.

Q. In general, what would you say concerning the existence of any risk of obsolescence or lack of customer demand in the commodities supplied by the companies under regard here?

[fol. 115] A. I don't foresee any within the estimated additional 25 years of life.

Q. Now, Mr. Toeppen, can you say anything about the probable survival of utility to this property beyond the 30-year period which you used?

A. There are two factors that come in there. The first one is to whether or not this gas supply will last longer than 30 years. Mr. Davis makes no statement as to reserves beyond the 25 years from 1940 which underlies the 30-year estimate from inception of the company.

It is not customary in those reserve calculations to make the most extreme assumptions as to the available gas. There may be some more in addition to what Mr. Davis gave as an estimate to be in the present reserves. There may be additional large areas in the western part of the Mississippi Valley which have not yet been discovered. The discovery of gas in the western part of the Mississippi Valley has been going on for very, very many years. We don't know what else we may find.

If gas should give out in the area, there is in that same eastern slope of the Rockies a substantial deposit of oil shales through Colorado, Wyoming and possibly farther south and if there is no more gas, there would probably be sufficient economic urge to exploit the oil shales for production of both gas and oil which can be transmitted [fol. 116] through this same pipeline.

There is another alternative, that either in the West or in the Middle West after the gas supply fails there will be manufactured gas production at mine mouth which can be economically distributed through this pipeline system in view of its then salvage value.

Q. Now, are you able, in view of all considerations which you have mentioned as being applicable, to form an opinion concerning the degree of risk or the comparison



of risk applicable to Panhandle Eastern Pipe Line Company and Michigan Gas Transmission Company in respect to their ability to yield adequate depreciation and reasonable earnings within the stated period?

A. As compared with what?

Q. With anything you wish to form some comparison, say, possibly with the risk of rate return.

A. Certainly there are some unprovided for risks which do not exist in the country as a whole in business. In other words, the entire country's business has a great diversity as to risk distributions and any one particular industry in the country will have a greater inherent risk than all the enterprises in the country together and, therefore and further, all the enterprises of the country together and their chance of survival and their relation to conditions in the country as a whole is, possibly, reflected [fol. 117] in the yield on U. S. Treasury bonds and notes. The risk of Panhandle Eastern and Michigan Gas Transmission is certainly one which is greater than a risk of the country as a whole and, therefore, the rate of return would be greater than this quasi risk less rate of U. S. Treasury bonds and notes of equal maturity.

Q. Well, now, how would it compare with other businesses and would you express a comparison in terms of figures for the rate of return?

A. Well, for example, it is probably more risky than the venture of the American Telephone & Telegraph Company. It operates in a limited territory as compared to the nation-wide operation of American Telephone & Telegraph Company. It is probably even more risky than a large electric light and power company such as Consolidated Edison of New York or Commonwealth Edison of Chicago. It is not as risky as a straight oil producing company or a straight gas producing company.

Q. Have you given any consideration to the ability of a concern like Panhandle Eastern to secure financing and the costs of money to it?

A. I have not.

Mr. Goodman: I present a paper which I will ask to have marked for identification as Exhibit 11. I am handing three copies to the Commission.

[fol. 118] (Document Referred To Was Marked Exhibit No. 11 For Identification.)

By Mr. Goodman:

Q. Will you please identify the exhibit marked 11?

A. Exhibit 11 is a chart showing the relation between yields of various United States Treasury securities and the life from the date of the quotation on which the yield is based to call date as during October 1939 and as based on a publication of the U. S. Treasury Department setting forth the average prices and average yields of all the outstanding issues during the month of October 1939.

Q. Did you prepare the exhibit?

A. It was prepared under my direction.

Q. And will you characterize its substantial purport?

A. This chart shows that yields vary more or less directly with the length of time to maturity or call date and that immediate maturities, that is maturities less than about a year and a half, at that time were sold at such a premium as to yield no return and that beginning at a year and a half the return increased gradually to about slightly over 2.5 percent for maturities over 17 years.

Mr. Goodman: I offer Exhibit 11 in evidence.

Trial Examiner: The ruling will be reserved.

Mr. Goodman: I present a paper and ask that it be marked Exhibit 12 for identification. I am handing three [fol. 119] copies to the Commission.

(Document Referred To Was Marked Exhibit No. 12 For Identification.)

By Mr. Goodman:

Q. Will you please identify Exhibit 12?

A. Exhibit 12 consists of five sheets relating to the yields of U. S. Government Securities in the interval from the quotation date of July 6, 1941 to maturity. It is based on information contained in the financial page of the "New York Times" for July 6 and is as of July 5. The yield rates are taken directly from the "New York Times" tabulation, a photostat of which is page 3 and the length of time to maturity was calculated by myself.

The information as to the time of call was calculated by myself and the information as to call dates was secured from the U. S. Treasury Department.

The second page contains the same information for the U. S. Treasury notes taken from the same source and the first chart is the graph of presentation of the information on the first and second sheets and was prepared personally by me and shows that immediate yields of about nine months or less again are negative and increase gradually [fol. 120] with increasing remaining life of the investment with slightly over 2 percent at 17 years.

The last chart is a similar chart drawn from similar sources prepared in the same way and by myself as of February 7, 1940 from information which I used in another case and brought in here simply to show the general continuance of conditions during that recent period.

By Mr. Goodman:

Q. Now, Mr. Toeppen, isn't it a fact that Exhibit 12 shows, in general, risk less rates of return which apparently varied dependent upon the length of maturity?

A. They do. They are not quite riskless, Mr. Goodman, they are subject to what might be called the integrated risks of the country as a whole.

Q. Now, how do the present yields from U. S. bonds compare with yields from the same securities in other years?

A. Very, very much lower.

Q. Could you refer to any date as a basis of comparison?

A. You have a chart on that.

Mr. Goodman: I wish to offer Exhibit 12 in evidence.

Trial Examiner: The ruling will be deferred.

Mr. Goodman: I present a paper which I request be marked Exhibit 13 for identification.

(Document Referred To Was Marked Exhibit No. 13 For Identification.)

[fol. 121] By Mr. Goodman:

Q. Will you identify Exhibit 13?

A. Exhibit 13 is a chart showing the history of yields of U. S. Government securities from 1920 to date for maturities, for additional lives, remaining lives of five, ten, fifteen and twenty years from the date, during the month from which this yearly yield was calculated. It is calculated for only two months in each of the years.

The calculation was carried out under my direction and supervision and shows that these yields in March of 1921 were all in excess of 5 percent for all lives of investment and have declined, not uniformly, but consistently from then to the present date.

The lines of the chart stop with February 7, 1940 and I have inserted beyond that four dots showing the yields for five, ten, fifteen and twenty-year lives as of the July 5 quotation under Exhibit 12 which yields seem to be almost the lowest that have occurred since 1921.

Mr. Goodman: I present a paper which I request be marked for identification Exhibit 14.

(Document Referred To Was Marked Exhibit No. 14 For Identification.)

[fol. 122]. By Mr. Goodman:

Q. Will you please identify the paper marked Exhibit 14?

A. Exhibit 14 is a computation in which I take yield rates from Exhibit 12 and the chart for July 5, 1941 as read from the curve on that chart for one year, two years and so on for maturities to 30 years and average them at an equal weight which shows that if you have a serially maturing investment, maturing in equal, annual installments, each installment yielding the return at the time of acquisition, shown on the July 5 chart of Exhibit 12, that you will obtain an average yield of 1.66 percent over your 30 years investment.

[fol. 123]. By Mr. Goodman:

Q. Do you have any opinion, Mr. Toeppen, concerning what would be a fair rate of return for a utility such as Panhandle Eastern Pipe Line Company and Michigan Gas Transmission?

A. Yes.

Q. What is it?

A. It is a figure somewhere in excess of this 1.66 percent of Exhibit 14 and covering a range rather than a specific amount.

In view of the incomplete information concerning the treatment of certain specific risks, by these companies, [fol. 124] I would say it would run probably somewhere between 4.5 or 6 or 6.5 percent.

Q. You mean that it is your opinion and judgment that a return as high as 6.5 would be clearly adequate and a return as low as 4.5 might be adequate?

A. That is correct.

Mr. Goodman: That is all and that is our case.

There is one other question I would like to ask.

By Mr. Goodman:

Q. Mr. Toeppen, you have not made any attempt to make an apportionment of any available reduction to Michigan Consolidated Gas Company? A. I have not.

Q. Why have you not done so?

A. For two reasons, first of all, if such an apportionment were to be made, more information than was presently available would be necessary.

Secondly, I believe that with the type of enterprise that we have here, that is an integrated utility serving a large number of customers, rather say an integrated plant serving a large number of customers, each one which is essential to the success of the entire venture, the cost to the system as a whole is the cost to every customer and there is no apportionment necessary.

Q. Well now, assuming that this Commission would [fol. 125] adopt as a fair rate of return 6 percent, how would you suggest that the reduction entailed thereby should be distributed?

A. I would suggest that the gate rate for every distributing customer be set at an amount per thousand cubic foot arrived at by dividing the amount in Exhibit 2 in the line entitled "Total Requirement at 6 Percent Per Annum



Return of \$5,362,000," by the proper number of cubic feet, preferably the cubic foot at 100 percent load factor.

Mr. Lee: Cubic foot sold you mean?

The Witness: Cubic foot sold, yes.

Mr. Goodman: That is all, Mr. Toeppen.

[fol. 146] Mr. Baldrige: It is suggested that that part of Mr. Clark's statement with respect to affiliations and similar matters, that begins at line 2 on page 44 of the record and reads as follows: "Under that contract, if and when carried out, Michigan Gas Transmission Corporation is to be sold by Columbia Gas & Electric Corporation to Panhandle Eastern Pipe Line Company at cost. Panhandle Eastern is to have the right to acquire from Columbia Gas & Electric Corporation other connecting pipe lines in Indiana for approximately \$355,000. These would constitute all of Columbia Gas & Electric Company's lines in Indiana." be revised to read as follows: "Under that contract, if and when carried out, Michigan Gas Transmission Corporation and a small distributing company, which is likewise a subsidiary of Columbia Gas & Electric Corporation, are to be sold by Columbia Gas & Electric Corporation to Panhandle Eastern Pipe Line Company at cost and at the same time Panhandle Eastern Pipe Line Company will purchase other connecting pipe lines in Indiana belonging to another subsidiary of Columbia Gas & Electric Corporation for approximately \$355,000. These would constitute all, or substantially all, of the gas pipe lines in Indiana owned by subsidiaries of Columbia [fol. 147] Gas & Electric Corporation."

Trial Examiner: Thank you for this statement and I am going to ask that Release No. 2778 of the Securities and Exchange Commission, being the opinion and order of May 27, 1941 in matters relating to the Panhandle Eastern, et al, as amended by Release No. 2834, the Securities and Exchange order of June 21, 1941, come into the record as Exhibit 15.

I have asked that copies be obtained of this. I think that we should have this data in the record.

Mr. Gorman: If the Examiner please, I have obtained extra copies of the release of May 28 which I have in my office and will be glad to make available if anyone so desires.

Trial Examiner: The order of the Commission of June 21 is equally important because there are corrections made in the original order, so at your convenience, Mr. Gorman, if you will furnish those we will treat them as Exhibit 15.

(Exhibit No. 15 was received in evidence.)

[fol. 270] (Exhibits Nos. 1 to 14, inclusive, were received in evidence.)

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[fol. 337] C. H. M. BURNHAM was produced as a witness by and on behalf of Panhandle Eastern Pipe Line Company, and being first duly sworn, testified as follows:

Direct Examination.

By Mr. Wheat:

Q. Where do you reside?

A. Kansas City, Missouri.

Q. Are you employed by Panhandle Eastern Pipe Line Company?

A. Yes, I am Chief Engineer of Panhandle Eastern Pipe Line Company.

I graduated from Ohio State University with a degree of Bachelor of Mechanical Engineering in 1916. In 1929 I was granted a professional degree of Mechanical Engineer by the same university.

[fol. 338] In 1916 I went to work for the Ohio Fuel Supply Company, Columbus, Ohio. This company later became a subsidiary of Columbia Gas and Electric Corporation. It was engaged at that time, and, as I understand it, is now engaged, in the transportation and wholesaling of natural gas from Ohio and West Virginia fields. My early work with that company was as a draftsman, during which period I designed compressor stations and gaso-

line plants, gas measuring stations, and similar structures used in the natural gas industry.

In 1920 I became Construction Engineer for the same corporation. My time was largely engaged in supervising the designing and construction, as I said before, of compressor stations, natural gasoline plants, gas measuring stations, and pipe lines.

In 1925 I joined the organization of Henry L. Doherty & Company, New York City, with headquarters in Colorado [fol. 339] as Chief Engineer of the Colorado-Wyoming Gas Company, a Cities Service subsidiary. As Chief Engineer of Colorado-Wyoming Gas Company, I supervised the design and construction of its system, which extends from Denver, Colorado to Cheyenne, Wyoming. This is a natural gas pipe line system with all the usual appurtenances of such a line.

In addition to my duties as Chief Engineer of Colorado-Wyoming Gas Company, I collaborated on numerous occasions with the organizations of the other natural gas subsidiaries of The Cities Service Company in the Midcontinent and in the Appalachian fields. This collaboration was concerned largely with the construction of long distance natural gas pipe lines, compressor stations, and special problems involved in measuring and transporting natural gas.

In 1930 I was commissioned to make a study of the feasibility of building a natural gas pipe line from the Transylvania fields of Roumania to Vienna, Austria and Budapest, Hungary. In connection with this study, I spent approximately three months in Roumania, Hungary and Jugoslavia.

In 1936 I made a similar survey relative to a natural gas supply for Mexico City, Mexico. In the summer of 1936 [fol. 340] I went to California as Chief Engineer of the Coast Exploration Company, a subsidiary of Federal Water Service Corporation, organized principally to engage in the exploration for natural gas in California.

In 1937 I joined the organization of Panhandle Eastern Pipe Line Company, and have been employed continuously by that company since that date.

Q. Now, Mr. Burnham, will you describe your duties as Chief Engineer of Panhandle Eastern Pipe Line Company?

A. I have general supervision of the engineering activities engaged in by this company, including the construction of all new gas transmission facilities.

Q. Does this include the designing of facilities as well as their construction?

A. It does. My duties also include that of being familiar with all of the property owned and operated by this company, including its gathering line system, its gasoline, dehydration, and compressor stations, its pipe lines, its gas measuring equipment, and all other items of plant and equipment.

In 1938 I was assigned the job of testing the lines and equipment of this system in order to determine its safety at five hundred pounds working pressure. That particular job took me from one end of the system to the other, during which time I was able to observe not only the plant construction, but much of the pipe used in the construction of the system.

[fol. 341] In 1938 a program of increasing the flow efficiency of some of our lines was carried out under my direction. In this connection I designed (and later patented) a gas pipe line "go devil" for cleaning internally large diameter pipe lines. I might add here that the fouling in our lines was determined by test to be present only on the west end of the system and consisted of dirt, principally sand, included in the line at the time of construction.

This device consists of a ten-inch diameter by approximately four-foot segmented steel body having attached to it by means of leaf springs four rows of metal-backed steel brushes. Three roller bearing wheels are mounted on springs at each end to carry the weight of the device. These wheels are set tangentially to impart to the "go-devil" a spiral motion necessary to distribute the wear on the steel brushes and to obtain complete scrubbing of the [fol. 342] interior surface of the pipe.

In operation, the "go-devil" is placed in the line, and (by admitting gas behind it), is propelled through gate-to-gate sections of the line at a speed varying from twelve to fifteen miles an hour. As it progresses through the line the steel brushes loosen the dirt which, carried by the gas passing through and around the "go-devil," is blown ahead and out of the line. By means of this device we were able to restore a great many miles of our line to a clean condition and thus more nearly assure ourselves of full and unobstructed flow of gas through these sections.

Q. Have you anything to add, Mr. Burnham, to your description of your experience and duties as Chief Engineer of Panhandle Eastern Pipe Line Company?

A. Nothing other than the fact that we are extremely busy at the moment engaged in a construction program which involves the expenditure of some nine million dollars. We hope that this program will be largely completed by January 1, 1942.

Q. Is this work you have mentioned largely a continuation of the general program of this company to completely loop its pipe line system?

A. It constitutes that, and also the extending of our lines to new markets.

[fol. 345] By Mr. Wheat:

Q. Now, Mr. Burnham, let me ask you to what you refer when you use the expression "Panhandle Eastern Pipe Line System"?

A. I not only refer to the pipe lines, compressor stations, and other property owned by Panhandle Eastern Pipe Line Company, but also to the properties of a wholly-owned subsidiary, Illinois Natural Gas Company, which owns lateral lines in the State of Illinois.

According to the company's records, the construction [fol. 346] of the company's original line was commenced in the year 1930. The major part of the construction was completed in 1931, although service was not rendered on any considerable scale until the next year, 1932.

Q. Will you please state the length of the original line?



A. The total length of the original line was 859.4 miles. It includes the section of 22-inch pipe in Texas and Oklahoma, to a point in Kansas near the Liberal station.

The system today consists of 2,788 miles of varying sizes of pipe, including loop lines, lateral lines and gathering lines. Through this system the company serves, directly or indirectly, some 200 cities and communities having an aggregate population of upwards of three million persons.

Q. Please name some of the principal cities and communities so served?

A. Detroit, Monroe and Ann Arbor, Michigan; Fort Wayne, Muncie and Kokomo, Indiana; Champaign, Urbana, Peoria, Springfield, Jacksonville and Quincy, Illinois; Hannibal and Jefferson City, Missouri.

[fol. 347] The company's system includes 12 main line compressor stations and three small local area stations to which I shall refer later. It also includes a large gasoline plant for the extraction of gasoline from the natural gas as it comes from the wells. The system also includes two dehydration plants which are used for the purpose of removing moisture from the natural gas, in order to render it possible to transport the gas through the pipe line without danger of freeze up. In addition, the system has 629 measuring and regulating stations, together with numerous warehouses, camps, and various types of auxiliary structures.

Q. Now, Mr. Burnham, I would like to have you state the principal sources of supply of natural gas of this company?

A. Panhandle Eastern Pipe Line Company secures its supply of natural gas from two principal sources, the so-called Panhandle Field of Texas and the so-called Hugoton Field of Southwestern Kansas. In the former field gas is obtained from 110 wells and in the latter from 137 wells.

Approximately fifty per cent of the gas secured from both the Panhandle and Hugoton gas fields is purchased by the company and the balance is produced from the [fol. 348] company's wholly-owned or partnership wells.

At the present time approximately 70 per cent of the company's annual requirements are taken from the Texas



Panhandle Field and the remaining 30 per cent comes from the Hugoton Field.

In the Texas Panhandle Field the gas is gathered from the various wells through varying sizes of pipe-lines ranging from 4 to 22 inches in diameter and having a total length of about 125 miles. The gas thus gathered is brought into the Sneed Compressor Station where it is compressed and dehydrated by means of a glycol dehydration plant located on the same site. The gas is then carried northward through the Hansford, Texas, Compressor Station to the compressor station at Liberal, Kansas, a distance of some 105 miles, where it is mixed with the gas which has been gathered from the Hugoton gas field. The gathering system in the latter field consists of approximately 250 miles of various sizes of pipe lines ranging from 2 to 18 inches in diameter. At the Liberal Station, the natural gasoline is removed from the gas by an oil absorption plant, after which the mixture of Kansas and Texas gas is dehydrated in a second glycol plant and is thus made ready for transportation to the markets lying to the northeast. I might add that the natural gas, as it leaves this Liberal dehydration plant, is dry and sweet, and that it possesses a heating value of approximately 1000 BTU per cubic foot, and is in marketable condition.

[fol. 350] Q. Mr. Burnham, I wish you would explain briefly what is shown on Exhibit 15 for identification.

A. This map shows the entire transmission, and lateral pipe line system of Panhandle Eastern Pipe Line Company and includes in different colors, as shown on the "legend" in the lower right-hand corner of the map, not only the main-line construction, but also the loop construction made during the year 1937, which is shown in [fol. 351] red; the loop construction done during 1939 and 1940, which is shown in green; the new construction now in progress, which is shown in dotted purple lines; and also roughly the pipe line system of the Michigan Gas Transmission Corporation, which is shown by a heavy dashed blue line, commencing at the Illinois-Indiana boundary and running easterly and northeasterly from that point to the city of Detroit, Michigan.

I might add that the section of the Michigan Gas Transmission System between Muncie and the Ohio line is not properly shown there on that map. As I understand it, that section of the line does not belong to the Michigan Gas Transmission Corporation.

Q. And have you also shown on this map, Exhibit 15, for identification, the various compressor stations of the Panhandle Eastern Pipe Line Company?

A. I have. The compressor stations originally constructed on the Panhandle System are shown by dark [fol. 352] blue squares; those constructed in 1936 are shown by yellow squares; the one constructed in 1937 by a red square; and the one constructed in 1940 by a green square.

Q. This map apparently shows, Mr. Burnham, that the gas obtained by the company in the Panhandle Field of Texas comes to the Sneed Compressor Station through two distinct gathering line systems; is that correct?

A. Yes, that is correct. It is to be noted that gas which this company obtains in the Panhandle Field is produced in two general areas, one being in the northeast Potter, northwest Carson, southwest Hutchinson, and eastern Moore Counties. This gas, after being gathered through smaller pipe lines is moved through an 18-inch pipe line to a point some two and one-half miles southwest of the Sneed Compressor Station, where a junction is made with a 20-inch pipe line bringing gas from the other general area in the Panhandle Field from which the company obtains gas, that is, the south central Moore County area lying generally west and southwest of this junction. A 22-inch line leads from this junction to the Sneed Compressor Station.

Q. Mr. Burnham, have you in this connection prepared, or had prepared under your direction, a map showing generally the gathering pipe line systems of the Panhandle Eastern Pipe Line Company in the Panhandle and also in [fol. 353] the Hugoton Gas Fields? A. I have.

Q. Is the map which I now show you, Mr. Burnham, a copy of the map to which you have just referred?

A. It is.

Q. Was this map prepared by you or under your direction? A. Under my direction.

Q. And do you believe that it correctly shows what it purports to show? A. I do.

Trial Examiner: It will be marked Exhibit 16 for identification.

Q. Now, Mr. Burnham, does the map which has been marked Exhibit 16 for identification show in somewhat greater detail than Exhibit 15 for identification the gathering lines in the Panhandle Field to which you have just been testifying? A. I do.

Q. Would it be correct to state that all of the wells, which are shown as connected to the Panhandle Eastern gathering system in Texas by lighter solid lines on Exhibit [fol. 354] 16 for identification, belong to Panhandle Eastern Pipe Line Company?

A. That is true, except for two wells which belong to the Navajo Production Company from which Panhandle Eastern purchases gas at the wells in Texas.

As is fully shown on the Exhibit, the Panhandle Eastern Pipe Line Company's gathering lines in the Hugoton Field are much more extensive than are its gathering lines in the Panhandle Field. They also draw gas from a much larger area. This gathering system in the Hugoton Field, as is shown on the map, consists generally of two main arms extending westerly and northwesterly from the compressor station located at Liberal, Kansas. The branch which extends due west from Liberal some 37 miles consists of a 16-inch pipe. At a point about four miles west of the town of Hugoton, Kansas, one branch, consisting of 12-inch and thereafter 8-inch pipe, extends in a southwesterly direction, while another branch, consisting of 8-inch pipe, extends in a northwesterly direction.

The other main arm of the Kansas Hugoton Field gathering system consists of an 18-inch pipe line gradually reducing to 8 inches and extending some 50 miles in a northwesterly direction from the Liberal station. At a point on this line, about 26 miles from Liberal, a 16-inch

branch extends in a westerly direction, and thence a 10-inch line or branch in a southwesterly direction connecting with the 8-inch line from the arm first described.

Q. Does the Panhandle Eastern Company also purchase some gas in the Hugoton Field?

A. Yes, in addition to taking gas from its own wells in that field, Panhandle Eastern purchases approximately 60 per cent of its total requirements in that area from other producers. I should add that on the map of the gathering system, connecting lines joining the gathering pipe lines to wells which are shown by solid lines represent pipe lines owned by Panhandle Eastern, while dotted lines from wells to the gathering lines represent gathering pipe line systems owned by other producers who sell gas to Panhandle Eastern.

[fol. 356] Commencing at Windmill Junction, in Moore County, Texas, where the two main lines of the company's Texas Panhandle gathering system join, near the Sneed Compressor Station, a 22-inch O. D. by 11/32-inch wall, Lapweld, single random length pipe line extends 2.69 miles to Sneed Compressor Station. This line is a composite, welded and coupled line with a Dayton coupling every third joint.

From the Sneed Station to Hansford Station, a distance of 51.5 miles, the same type of material and construction I have just mentioned was used.

At Sneed Compressor Station we are just coming out of what is known as the Canadian River breaks, a badly eroded country typical of the area covered by the south branch of our Texas gathering system. Aside from a few small canyons the country from Sneed to Hansford is fairly level. There are some wheat fields here, but grazing of cattle predominates.

[fol. 357] From Hansford Compressor Station to the Beaver or properly called the North Canadian River in Oklahoma, there are .67 miles of 22-inch O. D. by 11/32-inch wall, Lapweld, single random length pipe and 13.56 miles of 22-inch O. D. by 5/16-inch wall, single, random length pipe. This pipe is also joined with a Dayton coupling every third joint. At the Beaver River, the line branches through the use of headers and gate valves into five 10-3/4 inch O. D. by .307-inch and .365-inch wall thickness, double random length, seamless pipe lines, solid welded, and weighted with river clamps. These multiple lines extend across the river bed for a distance of 1.01 miles. The total quantity of pipe in this river crossing is 26,680 feet.

From the north header on the Beaver River crossing, the line extends 37.98 miles to the south header of the Cimarron River crossing in Kansas. This section of line consists of 22-inch O. D. by 5/16-inch wall, single random length, Lapweld pipe with a Dayton coupling every third joint. The Cimarron River crossing consists of five 10-3/4 inch O. D. by .365-inch wall, seamless, double random length pipe, solid welded lines across the bed of the river for a distance of .71 miles and weighted with numerous river clamps. The total quantity of pipe in this river crossing is 18,804 feet.

[fol. 358] From Hansford to the Beaver River, the line runs through grazing country similar to that between Sneed and Hansford. At the Beaver River, we come to the great wheat growing area of the Oklahoma Panhandle. Almost solid wheat fields extend to a point near Liberal Station where we come into the breaks of the Cimarron River. This is near the center of the dust bowl of the Southwest.

Q. Does the loop line system of this company's pipe line commence at the Liberal Station?

A. Yes, and in describing the main transmission line from this point easterly, I should like to describe separately both the original line and the loop line between each compressor station. I should like to add that when mention is made of the fact that every second or every third



joint is made with a coupling, it is also meant, without exception, that the intervening joint or joints are welded.

The original line from Liberal Station to Greensburg Station, a distance of 86.72 miles, consists of 24-inch by 5/16 inch wall, electric weld pipe in 40-foot lengths. All coupled type of construction was used, meaning a coupling every 40 feet.

Total length of the loop between Liberal and Greensburg is 63.31 miles.

[fol. 359] The line from Liberal Station progresses through rough eroded country for a short distance then emerges onto the plain between Cimarron and Arkansas Rivers. Between Liberal and Greensburg Stations the crops are principally wheat and kafir corn. Due to the proximity of the dust bowl, dust storms are common in this area.

From Greensburg Station to Haven Station, the original line consists of 59.7 miles 24-inch O. D. by 5/16-inch wall, double random length, electric weld pipe with Dayton coupling on each joint and 26.24 miles 24-inch O. D. by 5/16-inch wall, 30-foot average random length, seamless pipe with a coupling on each joint.

[fol. 361] Total length of this loop is 65.67 miles.

Beginning at Greensburg the line is built through some 20 miles of shifting sand hills. It is here that considerable difficulty is experienced keeping the line covered. After emerging from the sand hills the line proceeds through a swampy area for a number of miles. Here the line is held down by means of numerous anchors.

[fol. 362] As I have said, the distance from Haven Station to the West header of the Arkansas River crossing is 4.08 miles. The original line for this distance is of 24-inch O. D. by 5/16-inch wall, seamless pipe with a coupling every joint. At the Arkansas River the original line branches out through the use of headers and valves into six 10-3/4 inch O. D. by .307-inch seamless, solid welded lines constituting the submerged crossing for this river. The distance from header to header across this river is 1.2 miles and the total quantity of pipe used in building this crossing was 38,130 feet.

From the east bank of the Arkansas River, the original line is constructed for a distance of 17.1 miles of 24 inch O. D. seamless pipe with a coupling every 30 feet. From this point to Olpe Compressor Station, a distance of 70.28 [fol. 363] miles, the original line is constructed of 24-inch O. D. by 5/16-inch wall, electric weld pipe with a coupling every joint.

[fol. 364] Near Haven Station the line is in the flood plain of the Arkansas River. Upon emerging it runs through 30 to 40 miles of good farming country to a point near Burns, Kansas, where we encounter the Flint Hills of central Kansas. Here for a distance of some 30 miles the line is laid in solid rock. As for farming, the Flint Hills are unsuitable for anything but grazing lands. Near Olpe Station the line runs out of the Flint Hills and the balance of this section of line is built through fairly good farming country.

From Olpe Compressor Station to the west header of the Neosho River, the original line extends for a distance of 9.99 miles and is constructed of 24-inch O. D. by 5/16-inch wall, double random length, electric weld pipe with a coupling every 40 feet. At this header, the original line branches into two 18-inch O. D. by 5/16-inch wall, solid [fol. 365] welded lines and on the bank of the stream the two 18-inch lines branch into six 10-3/4-inch O. D. by .365-inch seamless lines laid under the bed of the stream to a point beyond the opposite bank, where double 18-inch

welded construction is again used to the east header. The total quantity of 18-inch pipe used in this crossing is 33,955 feet, and the total quantity of 10-inch pipe is 6,797 feet, and the total distance from header to header is 3.43 miles.

From the east header of the Neosho River to the west header of the Osage River, the original line extends for a distance of 52.81 miles and is constructed of 24-inch O. D. by 5/16-inch wall, double random length electric weld pipe with a coupling every 40 feet. At the west header of the Osage River crossing, the 24-inch line branches into two 18-inch O. D. by 11/32-inch wall, solid welded, seamless lines which at the west bank of the stream branch into six 10-3/4-inch O. D. by .365-inch, seamless lines which are buried under the bed of the river and which extend to a point on the east side of the river where similar double 18-inch construction is again used. The total distance from header to header at this river is 1.37 miles and the total quantities of pipe are 9,463 feet of 18-inch O. D. by 11/32-inch wall, solid welded, seamless pipe, and 14,919 feet of 10-3/4-inch O. D. by .365-inch solid welded seamless pipe.

[fol. 366] From the east header of the Osage River to Louisburg Compressor Station, the original line extends for a distance of 18.28 miles and is constructed of the following materials:

.19 miles 24-inch O. D. by 5/16-inch wall, double random length electric weld pipe with a coupling every 40 feet;

17.99 miles 24-inch O. D. by 5/16-inch wall, hammer weld pipe with a coupling every 30 feet, and

1 mile of 22-inch O. D. by 5/16-inch wall, single random length, Lapweld pipe with Dayton coupling every third joint.

The loop line out of Olpe Compressor Station extends from the station to the west header of the loop line Neosho River crossing for a distance of 10.05 miles and is constructed with the following materials:

16 miles 24-inch O. D. by 5/16-inch wall, double random length, electric weld pipe with coupling every second joint.

9.9 miles 24-inch O. D. by 9/32-inch wall, double random length, electric weld pipe with coupling every second joint.

At the west header of the Neosho River crossing, the line divides into two 18-inch O. D. by 3/8-inch and 9/32-inch wall, double random length, solid welded seamless lines which extend across the river for a distance of 3.42 miles to the east header where the two 18-inch lines converge into a 24-inch line.

[fol. 367] From this point, the loop line extends for a distance of 45.61 miles parallel to the original line and consists of the following:

22 miles 24-inch O. D. by 5/16-inch wall, double random length, electric weld pipe with Dresser coupling every second joint.

37.14 miles 24-inch O. D. by 9/32-inch wall, double random length, electric weld pipe with Dresser coupling every second joint.

8.25 miles 24-inch O. D. by 9/32-inch wall, double random length, seamless pipe with Dayton coupling every second joint.

The total length of the Olpe loop is 59.08 miles.

From Olpe to Louisburg the line runs through rolling country dotted with many farms. The principal crops are wheat and corn. The Osage and Neosho Rivers, as I just stated, are in this section and fairly rough going is encountered at several other spots.

From Louisburg Compressor Station to Houstonia Compressor Station, a distance of 73.45 miles, the original line is constructed of 22-inch O. D. by 5/16-inch wall, single [fol. 368] random length, Lapweld pipe with Dayton coupling every third joint.

The total length of the Louisburg Loop is 63.31 miles.

. . . . .

From Louisburg to Houstonia Compressor Station we have rolling wooded lands well drained and highly suited for general farming. Mixed crops are raised. There are also some orchards.

. . . . .

[fol. 369] From Houstonia Compressor Station to the west header of the Lamine River Crossing, the original line extends for a distance of 18.51 miles and is constructed of 22-inch O. D. by 5/16-inch wall, single random length, Lapweld pipe with Dayton coupling every third joint. At the Lamine River the original line branches into two 16-inch O. D. by .284-inch wall thickness, solid welded lines which, in turn, branch into six 10-3/4-inch O. D. by .365-inch solid welded lines which are submerged under the river. On the east bank the six 10-inch lines converge into two 16-inch lines which, in turn, converge into a single 22-inch line. The total distance from header to header at the Lamine River is 1.16 miles and the total quantities of pipe used are as follows:

6,951 feet of 16-inch O. D. by .284-inch, single random length, Lapweld pipe, and

15,977 feet of 10-3/4-inch O. D. by .365-inch wall thickness, double random length seamless pipe.

. . . . .

[fol. 370] From the east header of the Lamine River Crossing to the west header of the Missouri River Crossing, the original line extends for a distance of 15.24 miles and is constructed of 22-inch O. D. by 5/16-inch wall, single random length, Lapweld pipe with a Dayton coupling every third joint. The Missouri River Crossing of the original line is constituted of six 10-inch submerged lines requiring a total of 27,543 feet of 10-3/4-inch O. D. by .365-inch wall, double random length, seamless pipe. This crossing is solid welded, weighted with numerous river clamps and extends for a distance of .87 miles from header to header.



From the east header of the Missouri River Crossing to Centralia Compressor Station, the length of the original line is 35.45 miles and it is constructed of 22-inch O. D. by 5/16-inch wall, single random length, Lapweld pipe with a Dayton coupling every third joint.

[fol. 371] Q. What about the loop line between the east header of the Lamine River Crossing to the Missouri River?

[fol. 372] A. The total length of this loop is 55.59 miles.

Between Houstonia and Centralia Stations the line proceeds through typical Missouri farm lands. It is principally rolling country with many farms and orchards. The Missouri River with its broad flood plain is in this section.

From Centralia Station to the Mississippi River, the original line extends for a distance of 63.41 miles and is constructed of 22-inch O. D. by 5/16-inch wall, single random length, Lapweld pipe with a Dayton coupling every third joint. The Mississippi River crossing is constituted of two components; first, the 22-inch line on the Champ Clark Bridge; second, a double 12-inch submerged crossing. On the Champ Clark Bridge, the quantity of pipe used is .53 miles of 22-inch O. D. by 3/8-inch wall, single random length, Lapweld pipe solid welded and reinforced for the entire distance across the bridge. At the east end of the bridge the 22-inch line divides into two 18-inch O. D. by 5/16-inch wall, single random length, Lapweld lines solid welded for a distance of 7.17 miles where they converge into a single 22-inch line. This 22-inch line terminates at Pleasant Hill Compressor Station [fol. 373] and is but .04 miles long and is constructed of 22-inch O. D. by 5/16-inch wall, double random length, Electric Weld pipe with coupling every second joint.

The submerged crossing of the Mississippi River has a total length of .92 miles and is constructed of 9,713 feet of 12-3/4-inch O. D. by .375-inch wall, double random length, seamless pipe solid welded and weighted with river clamps. Its east header is tied into the original line with 720 feet of 22-inch O. D. by 5/16-inch wall, double random length, Electric Weld pipe with Dresser coupling every second joint, and 2,330 feet of 20-inch O. D. by 5/16-inch wall, double random length, Electric Weld pipe with Dresser coupling every second joint.

. . . . .

The loop line out of Centralia Compressor Station is constructed of the following pipe:

.09 miles 22-inch O. D. by 5/16-inch wall, double random length, seamless pipe with Dresser coupling every second joint.

40.77 miles 22-inch O. D. by 9/32-inch wall, double random length, seamless pipe with Dresser coupling every second joint.

6.16 miles 24-inch O. D. by 9/32-inch wall, double random length, seamless pipe with Dayton coupling every second joint.

Total length of this loop is 47.02 miles.

. . . . .

From Centralia to the Mississippi River the line is on high rolling ground interspersed with farms. Fire clays are found in abundance here. Mixed farming is the practice in this area. The approach to the Mississippi River on the west side is down over steep bluffs and along the water's edge to the points of crossing. As I stated before, we have a submerged crossing here as well as a line on the Champ Clark bridge. From the east bank to Pleasant Hill Station the line runs through a low flat flood plain.

. . . . .

[fol. 375] From Pleasant Hill Compressor Station to the Illinois River, the original line extends for a distance of 19 miles and is constructed of 22-inch O. D. by 5/16-inch wall, double random length, Electric Weld pipe with cou-

pling every other joint. On the west bank of the Illinois River the original line divides into five 10-inch lines constituting the submerged crossing, which consists of:

12,916 feet 10- $\frac{3}{4}$ -inch O. D. by .365-inch, double random length, seamless pipe solid welded and weighted with numerous river clamps.

On the east bank of the river, the 10-inch river lines converge into two 18-inch lines. These lines are built of 18-inch O. D. by 5/16-inch wall, solid welded pipe and converge into a single 22-inch line at a distance of 2.66 miles from the river. The total length of the Illinois River crossing is 3.15 miles. From the end of the double 18-inch on the east side of the Illinois River to Glenarm Compressor Station, the original line extends for a distance of 48.52 miles and is constructed of 10.17 miles of 22-inch O. D. by 5/16-inch wall, double random length, Electric Weld pipe with coupling every other joint, 38.35 miles of 22-inch by 5/16-inch wall, single random length, Lapweld pipe with coupling every fourth joint.

[fol. 376] The Pleasant Hill loop is divided into two sections. The first section lies between Pleasant Hill Compressor Station and the Illinois River and is constituted of .39 miles of 22-inch O. D. by 5/16-inch wall, double random length, seamless pipe with a Dresser coupling every second joint, 18.75 miles 22-inch O. D. by 9/32-inch wall, double random length, seamless pipe with a Dresser coupling every second joint. The second section of the Pleasant Hill loop extends from the east side of the Illinois River, parallels the original line for a distance of 23.87 miles, and consists of the following pipe:

10.82 miles 22-inch O. D. by 9/32-inch wall, double random length, seamless pipe with Dresser coupling every second joint.

[fol. 377] 13.05 miles 24-inch O. D. by 9/32-inch wall, double random length, seamless pipe with a coupling every second joint.

The total length of the Pleasant Hill loop, including both sections, is 43.01 miles.

Beginning at Pleasant Hill Station the line proceeds through some very hilly country cut up with deep ravines which nature of country extends to the Illinois River. The country from the Illinois River eastward to Glenarm Station is more level and is generally good farming land. Some drain tiles are encountered in this area.

Through this area, the farms are flat, the soil is not of such a nature as to give good drainage, and the farmers have put in numerous drain tiles. We cut those lines during the construction, and, needless to say,—well, I might say they are quite a nuisance. They have to be repaired, and even a year or two later the farmers require us to come back, and make complaint in case the drainage is not complete for their farm land.

[fol. 378] From Glenarm Compressor Station the original line extends for a distance of 8.37 miles to the west header of the Sangamon River, more properly the south fork of the Sangamon River crossing, and for this distance is constructed of 22-inch O. D. by 5/16-inch wall, double random length, Electric Weld pipe with a coupling every 80 feet. The Sangamon River crossing consists of a submerged crossing employing five 10-inch lines. The quantity of pipe used was 5,315 feet of 10-3/4-inch O. D. by 3/65-inch wall, double random length, seamless pipe, solid welded and installed with numerous river clamps and the total distance from header to header in this crossing is .2 miles.

Beginning with the header on the east side of the Sangamon River, the original line continues as a 22-inch line and runs for a distance of 46.64 miles to a point where the size is reduced to 20 inches. This 46.64 miles of line is constructed of 22-inch O. D. by 5/16-inch wall, double random length, Electric Weld pipe with coupling every other joint. From the 22-inch by 20-inch swedge to Tuscola Compressor Station is a distance of 14.31 miles and the line is constructed of 20-inch O. D. by 5/16-inch wall, single random length, Lapweld pipe with a coupling every fourth joint. The loop line out of Glenarm Compressor Station consists

[fol. 379] of 17.15 miles of 22-inch O. D. by 5/16-inch wall, double random length, seamless pipe with Dresser coupling every second joint, and 16.37 miles 24-inch O. D. by 9/32-inch wall, double random length, seamless pipe with Dayton coupling every second joint. The total length of the loop out of Glenarm Station is 33.52 miles.

Beginning at Glenarm Station and extending to a point just east of Decatur are more rolling farm lands. However, between this point and Tuscola Station and extending on to the Illinois-Indiana State line is a great section of the black rich corn land for which Illinois is famed. The land is heavily tiled and the crops are principally corn and soy beans.

[fol. 384] Q. Will you please describe the type of the original and loop lines in that section?

A. The original line from Tuscola compressor station to its terminus near the Illinois-Indiana State line, a distance of 44.03 miles, is constructed of 20-inch O. D. by 5/16-inch wall, single random length, Lapweld pipe with coupling every fourth joint. The loop line out of Tuscola compressor station, which extends for a distance of 23.79 miles parallel to the original line, is constructed of 20-inch O. D. by 9/32-inch wall, double random length, seamless pipe with Dayton coupling every second joint.

Q. Mr. Burnham, have you now described the entire main natural gas pipe line of Panhandle Eastern Pipe Line Company, including both the original and the loop line?

A. I believe I have.

Q. What portions of these main pipe lines are protected against corrosion by protective coating on the pipe?

A. All, except the 10-inch pipe in the Cimarrón River, the 10-inch and 18-inch pipes in the Arkansas River, the 18-inch pipe in the Neosho River, and the 10-inch pipe in the Osage, Lamine and Illinois submerged river crossings.

[fol. 385] Q. And was this coating applied when the lines were installed? A. It was.



Q. In addition to such coating, have any other means been taken to protect any portions of this main pipe line system against corrosion?

A. Yes, at some thirteen points on the system we have installed cathodic units of various types in order further to protect the pipe by electrical means.

Q. What in general is the depth at which the main pipe lines are placed in the ground?

A. A minimum of thirty inches of cover has been employed in all instances in the construction of the pipe lines [fol. 386] which I have been describing. At numerous points, particularly at rivers or creek banks, the pipe line is laid much deeper under the surface of the soil and these river and creek banks are protected with riprapi of stone or other materials. In order further to protect the backfill, the company has made numerous installations of breakers and spillways throughout the length of the line.

It has been found, particularly where the line traverses swamps or unstable ground, that anchors are necessary, and numerous anchors have been installed at these points to prevent the pipe floating. These anchors are concrete or of steel expansion type, depending on soil conditions.

Q. Does the main pipe line system which you have described include gate valves with by-pass or blow-off connections?

A. Yes, at intervals of every eight or ten miles along [fol. 387] the pipe line, there are installed 24 inch, 22 inch or 20 inch main line gate valves with by-pass and blow-off connections. These block gate valves are used for sectionalizing the line.

Q. Will you state what you mean by the term and whether it is a procedure normal to the operation and maintenance of natural gas pipe lines?

A. Yes, it is such a procedure and it consists of closing the block gates at either end of the section to be isolated. The blow-offs are then opened to the atmosphere, and, as soon as the pressure has been relieved, the section can be safely uncovered and worked on. When a looped sec-



tion of line is to be isolated the same procedure is followed but by opening or closing the proper valves around each gate setting, the section to be isolated is by-passed and service through the second line continues uninterrupted.

Q. Before leaving your description of the company's main natural gas pipe line, Mr. Burnham, I wish you would state briefly what, if any, are the advantages of what you have termed loop lines?

A. Where the line is paralleled with a loop line, each of these sectionalizing gate valves is provided with cross-over connections thus, as I just stated, making it possible to operate the line continuously with one or more sections isolated. Aside from the added capacity provided by the loop line, this ability to isolate any section of the line, in [fol. 388] case of a break or other trouble, is of great advantage to the ultimate gas consumer. Repairs to lines and large scale maintenance programs may be carried out on a loop or double line without discommoding the public in the slightest degree, an advantage not possessed by most gas pipe lines in this country.

Between Liberal compressor station and the terminus of the line at the Illinois-Indiana boundary approximately 70 percent of the main line system is now looped, and it is expected that by the end of the year 1942 Panhandle Eastern Pipe Line Company will possess the only completely looped long distance natural gas pipe line system in the country.

Q. What would you say, Mr. Burnham, with respect to the effect of such looping upon the ability of the company to assure continuity of service to its customers?

A. I should say that such continuity of service is much more nearly assured by such a line than could be possible with a single line. In other words, I am of the opinion that the double or looped pipe line will assure the protection and continuance of service in a very positive manner.

Trial Examiner: May I ask: When you cut out one of the parallel lines, is the pressure stepped up in the other?

The Witness: Yes, if the season of the year permits you [fol. 389] to step up the pressure.

Of course, we have, as you know, a maximum operating pressure of 500 pounds. If we cannot step up the pressure, the service might be curtailed to some non-essential industry during that period.

Trial Examiner: But you ordinarily do step up the pressure so that the actual delivery is not curtailed?

The Witness: Yes, we ordinarily step up the pressure.

Trial Examiner: So that it is not materially affected?

The Witness: Yes.

[fol. 390] Q. Now, returning for the moment, Mr. Burnham, to Exhibit 15 for identification, that is the map of the main pipe line system of the company, does that map show the extent of looping which has been completed or is in progress on the company's main line?

A. It does. And when the work now in progress has been completed, 88.2 percent of the main line system will be looped, and there will be only four short sections east of Liberal, Kansas, which are not completely looped.

Q. That is east of Liberal, Kansas?

A. That is right.

Q. Now, I wonder if you will explain the type of construction shown by the dotted lines in the State of Michigan and northern Illinois on the map, Exhibit 15 for identification?

A. The pipe lines shown by purple dots in those States are being constructed for the purpose of furnishing gas to additional communities. They, as well as the loop lines [fol. 391] now in progress, will be completed as fast as pipe can be obtained and laid.

Q. Now, Mr. Burnham, will you please describe generally the flow and route of natural gas in the company's pipe line system?

A. As shown by Exhibit 15 for identification, gas produced in the Panhandle field moves first to the Sneed compressor station in Moore County, Texas; thence to Hansford compressor station in Hansford County, Texas; and thence to the compressor station at Liberal, in Seward County, Kansas. Liberal is also the point at which the gas gathered by the network of gathering lines in the Hugoton

Field is delivered to the main line. While the trunk line from Sneed to Liberal is of main line type and construction, and a small volume of gas is delivered from it for use in the small community of Gruver, in Hansford County, Texas, yet the entire group of lines west of Liberal including this line from Texas is in a sense a large gathering system. In fact, Panhandle Eastern is now receiving a part of its purchased gas at a point on its line near Baker, Oklahoma. (It is not intended to present on Exhibit 15 an accurate outline of the southern portion of the Hugoton field. The outline shown is only a general one.)

From Liberal the gas produced and purchased in Texas, Oklahoma and Kansas moves in an easterly direction [fol. 392] through compressor stations at Greensburg, Haven, Olpe, Louisburg, Houstonia, Centralia, Pleasant Hill, Glenarm, and Tuscola to Dana measuring station near the Illinois-Indiana line. At Dana measuring station the gas is delivered to the Michigan Gas Transmission Corporation.

At many points along the main line, lateral lines belonging to the Panhandle Eastern Pipe Line system deliver gas to communities hereinafter referred to as being supplied by Panhandle Eastern Pipe Line Company, or for delivery to those industries to which the Panhandle Eastern Pipe Line system renders direct service. The lateral lines in Kansas and Missouri belong to Panhandle Eastern Pipe Line Company and those lateral lines which are in Illinois belong to Illinois Natural Gas Company.

Q. What is the final destination of the natural gas which has not been withdrawn through laterals in Kansas, Missouri and Illinois, and which has not been lost or used [fol. 393] in transit through the company's main line system?

A. That gas is delivered to Michigan Gas Transmission Corporation at the Dana measuring station near the Illinois-Indiana line.

Some of that gas so delivered to the Michigan Gas Transmission Corporation is sold by that corporation to customers of its own, which furnish gas at retail in certain communities in Indiana. Certain of the rest of the

gas is transported by the Michigan Gas Transmission Corporation for Panhandle Eastern Pipe Line Company, for a consideration, to customers of Panhandle Eastern Pipe Line Company in Indiana, Ohio, and Michigan, including Michigan Consolidated Gas Company at Detroit. These customers in turn distribute the gas at retail in various cities and communities in those States.

[fol. 394] Q. Mr. Burnham, have you prepared a schedule showing the various compressor stations of the Panhandle Eastern Pipe Line Company's system, together with the year of their construction and the horsepower now installed at each station? A. I have.

Q. Is the document which I now show you, which is headed "Schedule 1," the document to which you have referred? A. It is.

Q. Was that prepared by you or under your direction?

A. Under my direction.

Q. And do you believe it correctly states what it purports to state?

Mr. Wheat: Mr. Examiner, I should like to ask that the one-page document marked "Schedule 1", be introduced for identification as Exhibit 17.

(Schedule 1 referred to was marked as Exhibit No. 17 for identification.)

[fol. 395] By Mr. Wheat:

Q. Now, I note on this exhibit, 17 for identification, Mr. Burnham, that only three of these twelve main line compressor stations appear to have been constructed when the line was first placed in operation; is that not correct?

A. It is. The three compressor stations which were originally installed are those at Liberal, Kansas; Louisburg, Kansas; and Glenarm, Illinois.

Q. Mr. Burnham, how was it possible to operate this main line system with only three compressor stations?

A. This was possible because of the comparatively small amount of natural gas then being moved through the system, and prior to 1936 the gas produced in Texas moved on well head pressure more than 100 miles to the station

at Liberal, Kansas. It was there compressed and moved more than 350 miles to the Louisburg station where it was again compressed and moved some 285 miles to the compressor station at Glenarm.

[fol. 396] Q. Was it later found necessary to install additional compressor stations?

A. I do not think it is correct to state that it was later found necessary to do this. The company recognized at all times that as soon as the pipe line was fully loaded and as soon as its reasonably-to-be-expected markets should develop, additional compressor stations would be required in order to move through the pipe line the greatly increased volumes of gas which would then be required by those markets. As proof of this, it is of interest to note that compressor station sites for all but two stations were acquired at the time the line was originally built, and dividing gates required for compressor stations as well as side gates were installed at that time.

Q. Were such additional stations actually installed?

A. Yes, as shown by the schedule, in 1936 a new compressor station was installed southwest of Liberal, Kansas, three stations were installed between Liberal and Louisburg, three between Louisburg and Glenarm, and in 1937 one east of Glenarm. In 1940 a second compressor station was installed southwest of Liberal.

Q. In addition to constructing these new compressor stations, has any increase been made in the compressor horsepower of the original stations?

A. Yes, the horsepower at Liberal, which was originally [fol. 397] 4,000 in 1930, was increased to 5,000 in 1931, to 7,000 in 1936 and to 10,000 in 1937. The original 5,000 horsepower at Louisburg was increased in 1937 to 7,000 and the original 4,000 horsepower of Glenarm station was increased in 1937 to 5,000 and in 1940 to 6,000. I think I should add that the horsepower at Glenarm station is now being further increased by the addition of another, 1,000 horsepower unit to bring it to a total of 7,000 horsepower.

Q. Have any of the other stations which were installed since 1930 been given added horsepower?

A. Yes, the Greensburg station, which was originally installed with 3900 horsepower in 1936 was increased to



7800 horsepower in 1937. The same thing was done at the Haven and Olpe stations; Centralia, with 3,900 in 1936, was increased to 6,500 in 1937; Pleasant Hill, with 2,600 in 1936 was increased to 6,500 in 1937. An additional 1,300 horsepower unit is being installed at Pleasant Hill this year which will increase its power to 7,800. Tuscola, constructed with 3,900 horsepower in 1937, was increased to 5,100 in 1939, and a new 600-horsepower unit is now being installed which will increase its rating to 5,700 horsepower.

Q. The total compressor horsepower on the system has, therefore, been materially increased, has it not, commencing in 1936?

A. Yes, commencing in that year, the horsepower of [fol. 398] the main line compressor facilities has been increased from fourteen thousand to eighty thousand one hundred, and with the completion of installations now in progress, this figure will be increased to a total of eighty three thousand horsepower.

From Sneed station to Hansford the distance by pipe line is 51.50 miles;

From Hansford to Liberal, the distance is 53.99 miles —

From Liberal to Greensburg, the distance by pipe line on the original line is 86.72 miles.

Q. And on the loop line?

A. 63.34 miles.

From Greensburg to Haven, the original line is 85.94 miles, and 65.67 miles is the length of the loop line;

[fol. 399] From Haven to Olpe, the original line is 92.66 miles, and of this distance 66.62 miles is looped;

From Olpe to Louisburg, the original line distance is 85.89 miles, and of this distance 59.08 miles is looped;

From Louisburg to Houstonia, the distance on the original line is 73.45 miles, and of this distance 63.31 miles is looped;

On the original line between Houstonia and Centralia, the distance is 71.23 miles; and of this distance 55.59 miles is looped;

From Centralia to Pleasant Hill station the distance by pipe line is 71.15 miles, and of this distance 47.02 miles is looped;

From Pleasant Hill to Glenarm, the distance is 70.67 miles, and of this distance 43.01 miles is looped;

From Glenarm to Tuscola the distance by pipe line is 69.52 miles, and of this distance 33.52 miles is looped;

From Tuscola to the terminus of the line,—in other words, to the Illinois-Indiana line, the distance is 44.03 miles, and of this distance 23.79 miles is looped.

Q: What is the approximate percentage of looped line between the Liberal station and the terminus of the line—the Indiana-Illinois boundary?

A: I think I stated before 70 percent, approximately.

[fol. 400] In addition to the main trunk line just described, with its attendant field gathering lines, the Panhandle Eastern Pipe Line Company system owns and operates 597.4 miles of lateral lines of various sizes and lengths; in Texas, 2.8; in Kansas, 65.5; in Missouri, 266.8, and in Illinois 262.3.

[fol. 401] As already stated, the gas, on its journey from the fields to eastern markets, passes under numerous streams and rivers. The principal rivers where multiple line submerged crossings are used, are as follows: Beaver River in Oklahoma, Cimarron River, Arkansas, Neosho and Osage Rivers in Kansas, Lamine and Missouri Rivers in Missouri, the Mississippi River where both a submerged crossing and a crossing on the Champ Clark Bridge are utilized, and the Illinois and Sangamon Rivers in Illinois.

Aside from certain constructional advantages, multiple lines are used under rivers for the purpose of making service more certain; if a single line were built across a river

and it should be washed out, it would take days, even weeks in some cases, to resume service on the system. To avoid this possibility, it has been the practice of this company to divide the line at river crossings into two or smaller lines, thus insuring itself to a greater extent against a complete interruption of gas supply, since essential deliveries can be maintained if only one line of the multiple constituting the river crossing is left in service.

\* \* \* \* \*

[fol. 402] In addition to the company's main line property and the production and gathering systems and lateral pipe lines, the company owns and operates another unit or minor system termed its local area system, which lies to the south of Kansas City in both Missouri and Kansas.

The greater part of this local area system was built in 1928 and 1929 to gather gas produced from shallow wells in Miami, Franklin and Lynn Counties, Kansas, and Jackson County, Missouri, and distribute it to the towns and communities in the immediate vicinity. The size of the lines constituting this local area system varies from two to ten inches in diameter and the total length of these lines is:

Kansas—257 miles, Missouri—110 miles.

Practically all of the gas in this local area is purchased from independent producers and is sold for resale in the town and villages in the immediate vicinity; however, during cold weather the gas supply derived from these shallow wells is wholly inadequate for the requirements of these small towns and it has been found necessary to supplement the locally produced supplies with gas from the main line system. Some sales, principally in the summer months only, are made to the Cities Service Gas Company at Kansas City. There are approximately five hundred [fol. 403] and twenty-three wells, in 22 of which the company has an interest, attached to our lines in this area.

\* \* \* \* \*

The locally produced gas supply in this area is fast dwindling and it is anticipated that it will soon be neces-

sary to abandon the greater portion of his local area system.

Q. Mr. Burnham, have you prepared a schedule listing the principal communities served by Panhandle Eastern Pipe Line Company's system in the States of Texas, Kansas, Missouri, and Illinois?

A. I have, and I should add that the schedule in question also lists the principal communities in Indiana, Ohio, and Michigan served by the system through utilization of facilities owned and operated by Michigan Gas Transmission Corporation.

Q. Is the document marked Schedule 2, which I show you; the study which you mentioned? A. It is.

Q. Was this made by you, or under your direction? [fol. 404] A. Under my direction.

Q. And do you believe it correctly shows what it purports to show? A. I do.

(Identification Markings on Schedule 2 of "Exhibit 18" Deleted and the Same Was Remarked "Exhibit 17, Schedule 2" For Identification.)

[fol. 405] Q. Now, in addition to the communities mentioned on Schedule 2, are there any other communities which the company has contracted to serve?

A. Yes, the company has contracted to serve and is attempting to make service available as soon as facilities can be constructed to the following communities:

In Illinois: Abington, Galesburg and Knoxville.

In Indiana: Greenfield and Richmond.

In Michigan: Adrain, Albion, Battle Creek, Flint, Jackson, Kalamazoo, Owosso, Marshall, Pontiac and more than eighty small communities in the same general area.

The company has contracts covering direct industrial sales with sixteen industrial consumers.

[fol. 406] Q. Have you prepared a schedule showing the names of these industrial consumers and the purposes for which the gas is used by them, respectively, as well as the dates on which they were first rendered service?

A. I have.

Q. Is the document marked "Schedule 3", which I now show you, the schedule in question?

A. It is.

(Schedule 3 Referred To Was Marked As Exhibit 17, Schedule 3, For Identification.)

Q. Now, Schedule 3 is self explanatory, is it not, Mr. Burnham? A. It is.

The company owns 91 producing gas wells, 34 of which are in Kansas, and 57 in Texas. It also owns a 50 percent interest in 46 producing wells in Kansas.

[fol. 407] Q. Have you prepared a schedule giving a list of the wells you have just enumerated, separated as to State and ownership?

A. I have, and I have also shown the depths of the respective wells and the principal items of pipe and equipment used in each well.

Q. Is the schedule which I now show you, marked "schedule 4", the document which you have referred to?

A. It is.

Q. Have you also prepared a schedule showing the equipment used in the various compressor stations?

A. Yes, and I wish to emphasize that the size, type and capacity of the equipment in the various compressor stations vary, depending on the requirements of the individual station and the availability of various types of equipment when it was installed.

[fol. 408] Q. Now, have you also prepared, Mr. Burnham, a schedule showing the main principal items of equipment and the structures contained in the company's dehydration and gasoline plants?

A. Yes, the company has a dehydration plant at Sneed, Texas, and a dehydration and gasoline plant at Liberal, Kansas. I have listed the principal structures and major items of equipment at each of these plants.

Q. Is the schedule marked "Schedule 6", which I now show you, the schedule which you referred to?

A. It is.

[fol. 409] Q. Now, Mr. Burnham, is it a fact that at some points the company has constructed residence and housing facilities for its employees?

A. Yes, some of the compressor stations were located at points where adequate housing facilities were not otherwise available. In addition, since there were no housing facilities in the production areas where the company secures its gas supplies, it has been necessary for the company to construct certain camps for the use of its employees.

These camps are located at the Sneed, Liberal, Hansford, Louisburg, and Glenarm compressor stations, and also, for production forces, at Hugoton, Kansas, and at Fritch and Zoffness, Texas.

Q. Have you prepared a schedule showing the location of these various camps and also the principal structures and equipment there installed? A. I have.

Q. Is the document which I now show you, marked "Schedule 7" the document to which you have referred? [fol. 410] A. It is.

Q. Does the Panhandle Eastern Pipe Line Company possess many measuring or regulating stations and auxiliary equipment?

A. Yes, the company has more than 600 measuring and regulating stations to operate and maintain, and it is necessary in that connection for the company to have large quantities of equipment and tools especially suited to this particular, and highly technical work.

Q. Have you prepared a schedule showing in general the property and equipment owned by the company and



used by the Gas Measuring Department for maintenance and repair purposes? A. I have.

Q. And is the schedule marked "Schedule 8", which I now show you, the document in question? A. It is.

[fol. 411] Q. Now, Mr. Burnham, what have you to say about the warehouses and general equipment of the company?

A. The Pipe Line Department must, at all times, have on hand at convenient points along its pipe line system, adequate quantities of material and supplies in order to maintain uninterrupted service to gas customers on the system. For this purpose it has twelve warehouses, together with automotive and other special equipment essential to both routine operations and emergency service. Two warehouses are also maintained for the Production Department.

Q. And have you prepared a schedule showing the various warehouses and their location and the major equipment located at each warehouse? A. I have.

Q. And is the schedule marked "Schedule 9", which I now show you, the one to which you refer? A. It is.

[fol. 412] Q. Does Panhandle Eastern Pipe Line Company own any automotive equipment?

A. It owns 107 trucks and automobiles. In addition to the automotive equipment of the Pipe Line Department, consisting of thirty-three trucks and sixteen passenger cars, and the four trucks operated by the Production Department, there were fifty four other automobiles in service on the system as of June 30, 1941.

Q. Have you prepared a schedule showing the automotive equipment you have just mentioned?

A. I have, including the various departments in which these units are used.

Q. Is the document which I now show you, which is marked "Schedule 10", the one to which you refer?

A. It is.

Q. Now, have you also prepared a schedule showing, on a single page, the various sizes of pipe included in the lines

of the Panhandle Eastern system and the miles of pipe by sizes?

[fol. 413] A. I have. This schedule is as of June 30, 1941, and includes all pipe laid and in use in the company's main line, gathering lines and laterals, but does not include pipe or material in stock. In this schedule the pipe is classified according to use and to size.

Q. Is the one page document marked "Schedule 11", which I now show you, the study you just mentioned?

A. It is.

[fol. 415] Q. Now, Mr. Burnham, you have afforded us with a general picture of the extent of the physical properties constituting this natural gas transmission system. I wish you would tell the Commission what is the capacity of the main line of this system?

A. The delivery or sales capacity is approximately 250,000,000 cubic feet per day.

Mr. Goodman: Will you please repeat that?

The Witness: The delivery or sales capacity is approximately 250,000,000 cubic feet per day.

Q. At what pressure is the pipe line presently being operated?

A. At a maximum pressure of 500 pounds gauge per square inch.

Mr. Goodman: 500 pounds, what?

The Witness: Per square inch gauge pressure.

Q. How much gas did the system handle last year?

A. 58,535,000,000, in round numbers.

Q. Of this total, Mr. Burnham, how much gas was used for fuel and other purposes, including gas lost in transit?

A. 4,140,000,000 cubic feet, in round numbers.

Q. And is it a proper statement to say that the difference between the last two figures which you have mentioned represents gas sold?

A. Yes, it represents main line sales amounting to 54,395,000,000 cubic feet.

. . . . .

[fol. 417]. Trial Examiner: The documents which have been described and respectively identified as Exhibits 15, 16, 17 and its 11 schedules, and 18 are received in evidence, without objection.

. . . . .

[fol. 419] Mr. Culton: Mr. Examiner, the next two witnesses whose testimony will be presented are both geological witnesses; that is, they will testify, one of them with respect to the geological conditions in the Panhandle field and the other with respect to the geological conditions in the Hugoton field. Both will give some statistical information.

On the assumption that it might be of more convenience to the Examiner and also to the other counsel, we have prepared the testimony of these two witnesses in written form, so that it can be distributed. There are schedules attached to it, and I had in mind, if it suits the convenience of the [fol. 420] Examiner and counsel, to offer that testimony as the sworn written testimony of these witnesses and just interrogate them generally with respect to certain matters with regard to some of the maps that are presented in connection with their testimony; and I, myself, at this time, that is, at the time of presenting each witness, can tell the Examiner and counsel the nature of the testimony of these witnesses. If that is suitable, it will expedite the hearing.

Trial Examiner: It is a very excellent plan, Mr. Culton, and it is one that always results in advancing the progress of the hearing.

Mr. Culton: That is what I had in mind; so, if that is satisfactory we shall handle these two witnesses in that way.

Trial Examiner: Very well.

. . . . .

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[fol. 421] RUFUS M. SMITH was called as a witness on behalf of the Panhandle Eastern Pipe Line Company, being first duly sworn, was examined and testified as follows:

### Direct Examination.

By Mr. Culton:

Q. Your name is Rufus M. Smith? A. It is.

Q. You are an employee of Panhandle Eastern Pipe Line Company. A. I am.

Q. I hand you herewith document entitled "Written Testimony of Witness Rufus M. Smith" to which is attached Exhibit 30, consisting of a number of schedules. Does the written testimony referred to constitute your written testimony under oath in this case? A. It does.

Q. The schedules attached thereto, were they prepared under your direction? A. They were.

Q. Are the matters reflected in those schedules correct statements of the fact? A. Yes, sir.

. . . . .

[fol. 422] Trial Examiner: Very well. The reporter will mark the document, including 12 schedules which is the written testimony of Witness Rufus M. Smith, as Exhibit 30 for identification.

. . . . .

By Mr. Culton:

Q. I now present to you, Mr. Smith, a series of exhibits [fol. 423] marked 19 to 29, both inclusive, and one marked 30. I ask if these exhibits were prepared by you and under your direction.

A. Yes, they were, but one is missing. Exhibit 20 is hanging up. They all belong in the same series.

Trial Examiner: And the two maps which are hanging on the wall, may I ask, Mr. Smith, whether they belong to your series?

The Witness: They do.

. . . . .

Trial Examiner: These respective schedules and maps may be marked as indicated by Mr. Culton.

Mr. Culton: Nineteen to 29, inclusive, and 31.

Trial Examiner: Very well.

[fol. 433] Mr. Culton: We do not and we offer the exhibits and his written testimony in evidence.

Trial Examiner: The offer of Exhibit 30 in evidence will be withheld until completion of cross-examination when a ruling will be made on admission.

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GLENN G. BARTLE was called as a witness on behalf of the Panhandle Eastern Pipe Line Company, and being first duly sworn, was examined and testified as follows:

(Exhibits Nos. 32 to 36, Inclusive, Were Marked For Identification.)

[fol. 434] Direct Examination.

By Mr. Culton:

Q. Your name is Glenn G. Bartle?

A. That is right.

Q. What is your present position?

A. I am Professor of Geology and Dean of Liberal Arts in the University of Kansas City.

Q. You have prepared a written statement of your experience and qualifications and the written testimony which you are prepared to offer in this case?

A. I have.

Q. You have also prepared certain schedules?

A. I have.

Q. Those schedules are attached to the written testimony? A. Exhibit 36.

Q. Exhibit 36 constitutes the written testimony and the schedules referred to? A. Yes, sir.

Q. You have also caused to be prepared under your direction certain maps and graphs numbered 32 to 35, inclusive? A. Yes, sir.

Q. Do those maps and graphs correctly reflect the facts they purport to reflect?

[fol. 435] A. They do.

Trial Examiner: These several maps and graphs which have been referred to have been marked for identification, respectively, as Exhibits 32 to 35, both inclusive, and 36 which constitutes the written testimony of the witness referred to.

Thirty-six has certain schedules attached which also are included in that identification.

\* \* \* \* \*

[fol. 443] R. J. WALLACE, a witness appearing for and on behalf of the Panhandle Eastern Pipe Line Company, after first having been duly sworn, was examined and testified as follows:

\* \* \* \* \*

[fol. 444] Q. Your name is R. J. Wallace? A. It is.

Q. I hand you Exhibit 37 consisting of two volumes styled Parts 1 and 2. Has that been prepared by you?

A. It has.

Q. Have you, in connection therewith, in the introductory portion, presented in writing your testimony in this case? A. I have.

Q. Do the subdivisions attached thereto, as shown in volumes 1 and 2, present the facts which you offer in connection with your testimony and described in your written testimony? A. Yes, sir.

Q. The tabulations found under the summary contained in Part 1, do they represent accurate totals of the various items shown thereon? A. They do.

\* \* \* \* \*

[fol. 450] Trial Examiner: May I ask, Mr. Wallace, if you are able to state the number of pages in the two sections of the proposed Exhibit 37?

The Witness: 957 pages, I am sure.

Trial Examiner: In the two sections?

The Witness: In the two sections, yes.

\* \* \* \* \*



[fol. 451] Q. Mr. Wallace, how many leases did you treat in this study of the Panhandle Eastern?

A. I will have to check that. It was two hundred and eighty some, but I have my work sheets and I can check that very rapidly and give that to you also.

Trial Examiner: Exhibit 37, Parts 1 and 2, so far marked only for identification, has now been offered in evidence, and from the size of this exhibit it is readily evident that counsel will all desire time to examine it before any cross-examination can be had, and we will defer, therefore, cross-examination until such time as counsel indicate they desire it, subject to further arrangement of course.

\* \* \* \* \*

[fol. 452] LOUIS FENN SPERRY, a witness appearing for and on behalf of the Panhandle Eastern Pipe Line Company, having first been duly sworn, was examined and testified as follows:

#### Direct Examination.

By Mr. Wheat:

[fol. 453] Q. Where do you reside?

A. 12 Donnellan Road, Scarsdale, New York.

Q. Are you connected with Panhandle Eastern Pipe Line Company?

A. I am. Since February 1937, have been treasurer of that company, and of its subsidiary companies.

\* \* \* \* \*

I graduated from Williams College in 1919, with the degree of Bachelor of Arts. From 1919 to 1923, and again from 1929 to 1935, I was employed by the Guaranty Trust Company of New York, located at 140 Broadway, and later was one of the officers of its affiliated company, The Guaranty Company of New York, located at 31 Nassau Street. From 1924 to 1929 I was vice president of the National Bank of Auburn, at Auburn, New York. From 1935 to 1937 I was vice president of The National Bank of New Jersey at New Brunswick, New Jersey. And, as I have already stated, from 1937 to date I have been treasurer of Panhandle Eastern Pipe Line Company.

Q. In general, what has been the nature of your experience?

A. It has included both general and specialized duties covering practically all phases of commercial banking and [fol. 454] investment banking, together with the analysis of securities, the setting up of underwriting for corporations, and the marketing of corporate securities both through such underwritings and by retail sale. I have also, over the years, had considerable to do with the examination and study of corporate finances and corporate financial problems in general.

Since 1937 my experience has included general supervision of the financial operations of Panhandle Eastern Pipe Line Company, including the establishment and maintenance of both the private and public credit of that corporation.

Q. In connection with your work as treasurer of the Panhandle Eastern Pipe Line Company, have you become acquainted with the needs of that corporation for cash and materials and supplies for the current use of the company in its operations?

A. I have. I believe I am fully acquainted with the necessity of the corporation by way of proper and adequate provision for those items, and in this connection I have made definite recommendations to the management and to the Board of Directors in various meetings touching upon the financial policies of the corporation in this direction.

Q. Has your experience with the corporation given you [fol. 455] a knowledge of its affairs sufficient to enable you to determine the amount of cash and materials and supplies which it should have at hand at all times in order to properly conduct its affairs and to maintain a reasonable credit standard? A. It has.

Q. Have you recently made a detailed study of the operating conditions which confront the Panhandle Eastern Pipe Line Company for the purpose of determining in detail the amounts which that corporation will currently require for working capital? A. I have.

Q. What do you understand the term "working capital" to include?

A. I understand that term to include the materials and supplies necessary and requisite for the carrying on of current operations and current repairs, and also cash balances sufficient in amount to enable the corporation to pay promptly its current operating expenses as they accrue, to provide for such prepayments as are necessary, to afford provision for reasonably to be expected contingencies, and to make possible the continuous efficient operation of the corporation. This necessarily includes the meeting of such emergencies as they occur and the proper maintenance of current credit.

Q. In making the study you have just mentioned, would you consider this corporation being static in its operation? [fol. 456] A. No, because that is not the fact: This corporation is still growing and it expects further to enlarge its market outlets.

Q. Are the items included in your study, or are any of them, included or reflected in the plant accounts of the corporation?

A. No, none of the items included in my study are reflected in the plant account.

Q. Now, I wish you would tell us of what do these various items which make up your study consist.

A. They consist of (1) normal cash funds for operating expenses, (2) a provision for emergency cash, (3) a provision for necessary minimum bank balances, (4) a provision for necessary current advance prepayments, (5) materials and supplies, and (6) line pack.

Q. Now, Mr. Sperry, I wish you would take up and discuss each of these various items. Suppose you start with what you have termed "normal cash funds for ordinary operating expenses." I would like to have you state in your own words what you have done in order to determine the reasonable and proper amounts of such funds which you believe should be carried currently on hand.

A. As treasurer of this corporation it is my definite opinion, based upon my actual experience in handling the funds of the corporation, that it would be unwise, un economical and improper for the company management to attempt to operate this enterprise without at all times having available in cash the necessary money to pay its ordinary and usual operating expenses for a period of at least 45 days. I believe it would be preferable for the

company to have on hand at all times an amount sufficient to cover such expenses for a period of 60 days, and in my opinion the period of 45 days which I have just mentioned should be considered the only safe minimum for reasonable and economical operation. I have made a careful study of the operations of the company during the 18 months period ending June 30, 1941 for the purpose of determining its cash disbursements for purely operating expenses. Included in this study were payments for wages, gas purchased, overheads, ordinary maintenance, general operating expenses, normal regular construction expense of the nature of maintenance, on which no interest during construction is charged; also production, franchise, sales, workmen's compensation and unemployment taxes. Excluded from this consideration were amounts paid for materials and supplies, prepayments, and ad valorem, income and capital stock taxes, as well as payments for interest, [fol. 458] sinking fund, and other capital expense items. The total paid for such purely operating expenses during said eighteen month period was \$5,609,600, or approximately \$311,666 monthly. Such an expense for a 45-day period would be approximately \$467,000. Having in mind the rising cost of wages and many other items included in this study, it is my judgment that the company should at all times have on hand for this purpose at least the sum of \$470,000.

Q. Mr. Sperry, in addition to the provision of cash for ordinary operating expenses, is it necessary in your opinion for this corporation to maintain currently certain cash balances to cover reasonably to be expected emergency situations?

A. Yes, I believe that this company must make such provision. It must recognize that it is likely to be faced with operating or construction emergencies such as line breaks and serious accidents which may not be fully covered by insurance. It is also necessary to consider the circumstance that there is seasonal fluctuation of cash needs among typical 45-day periods and that the flow of cash must be adjusted by the maintenance of additional cash on hand to cover the unusual periods.

Q. For the purpose of coping with such emergencies as you have mentioned and also in order to adjust the flow of cash, is it your opinion that the company should main-

tain a cash balance over and above that which you have mentioned for the normal 45-day period?

[fol. 459] A. That is my opinion.

Q. How much do you believe the company must keep on hand to cover these items?

A. I believe that it should have available for these items a minimum sum of \$100,000.

Q. Is it necessary for your corporation to maintain certain bank balances based at least partially on the activity of its account?

A. It is. Any company which issues a large number of checks must at all times maintain substantial bank balances, and the amounts required by the banks in this connection are based on the activity of the account in question. In my judgment, the appropriate sum which should be maintained for this purpose is not less than \$200,000.

Q. In the course of its business, is it necessary for this corporation from time to time to pay certain items of operating expenses in advance of their normal accrual date? A. It is.

I have reference to such-so-called prepaid items as insurance premiums and advance rentals on undrilled acreage.

These items necessarily paid for in advance are carried on the company's books as prepayments. They are extinguished by monthly charge-offs during the periods to which [fol. 460] they are applicable.

Q. Have you made a study to determine the amount of such prepayments?

A. I have. During the 6 months ending June 30, 1941, the prepayments averaged \$128,087 each month-end. On June 30, 1941, they totaled \$135,113, of which \$55,361 represented lease rentals, \$79,001 represented prepaid insurance, and \$750 represented the prepaid rental upon a bridge river crossing.

Q. What is your judgment, Mr. Sperry, in respect to the fair and reasonable amount which you believe the company should keep on hand to represent and cover such prepayments?

A. In my judgment a minimum reasonable sum representing such prepayments would be \$130,000.

Q. Now, Mr. Sperry, have you made any investigation in respect to the materials and supplies which this company must currently keep on hand?

A. I have made a careful investigation of that subject. This investigation has covered the materials and supplies not included in the plant account. Not only in respect to those now on hand, but also in respect to the amounts which will be required during the reasonable immediate future.

Q. I wish you would please state the amounts of such materials and supplies which are now carried on hand by the different departments of the company. Please state these amounts in dollars according to the cost of the materials and supplies carried by each department.

A. The Transmission Department, including the Gas Measurement Division, has on hand currently \$158,293.44 of materials and supplies. The Production Department has on hand \$37,741.74. The Compressor Department, including Gasoline Plant and Auxiliary Equipment, has on hand \$58,487.98. The Communications Department and the Cathodic Protection Department has on hand \$2,862.98; and the Transportation Department, including Automotive Equipment, has on hand \$3,700.47.

The total is \$261,086.61.

Q. Would you mind stating as of what date, Mr. Sperry?

A. That is approximately the middle of the year date.

Q. June 30th?

A. In some cases, the departments have submitted their inventories as of slightly different dates, but it is approximately the end of June or early in July.

Q. Now, Mr. Sperry, I understand you to state that the figures that you have just given is the aggregate amount of the cost of the materials and supplies now carried on hand. Is this amount reasonably representative of the materials and supplies which have currently been kept on hand by this company in its various departments over the [fol. 462] past few years. A. It is.



Q. What is your opinion, based upon your experience with the company, in regard to the amounts of materials and supplies which should be kept on hand as of the present time and the immediate future?

A. I think the stock must be largely increased.

Q. Why?

A. Because the present situation in which we find ourselves is quite different from the conditions that have existed in the last few years.

Q. Do you base this opinion entirely upon judgment, or has the company acted to increase its current stock of materials and supplies along the lines you have indicated?

A. The company has acted directly along this line. In fact, a considerable amount of additional equipment is now on order, and many other items must be ordered in the immediate future and obtained before the coming winter season opens.

Q. Would it be your view, based upon your experience with the Company and your testimony just given, that the stocks of materials and supplies now carried or carried over the past few years, reflect an adequate standard for the immediate future?

A. I do not believe that they reflect such a standard.

Q. I wish you would state your reasons for this opinion. [fol. 463] A. There are several such reasons which I should like to outline in some detail.

\* \* \* \* \*

Among the more important reasons which have lead me to form the opinion which I have just expressed are the following:

(1) Until recently, the company has been able to operate with excess facilities available so that when repairs were needed the remaining facilities were adequate, temporarily at least, to handle the required load while repairs were being made.

(2) It now conclusively appears that all available facilities are to be required to handle the peak loads which will be required by customers during the coming fall and winter months of the current year.

(3) The company is now operating its system at higher pressure than those employed in former years. It is obvious that due to this circumstance more frequent repairs will have to be made than have been required in the past because of the greater strain on the equipment.

(4) Since the line will be operating at capacity during peak periods, repairs will have to be made immediately, since it would be disastrous to wait for the necessary replacements to be obtained from the factories under current [fol. 464] manufacturing conditions.

(5) The parts included in this system which are ordinarily of short life are "more nearly" approaching the end of their usefulness. We anticipate, therefore, an increasing need for additional repairs.

(6) There is a great diversity of equipment used in our property and many types and sizes are necessary to be kept in stock. As examples the company is using approximately 10 different types of compressors, 15 different types of generators, 17 different types of meters, 72 different types of valves, 56 different types or sizes of pipe, and 18 different types of couplings. All of this diversified equipment is serviced out of fourteen warehouses, spread over approximately 800 miles of line. For efficient operation, it is necessary, in order that service interruptions be kept at a minimum, that full supply of extra parts be well distributed along the line so that when needed they may be obtained at the earliest possible moment. In connection with this, it is well to point out that the greater portion of our properties is located in areas far removed from the factories where most of the parts are manufactured.

(7). Until recently, it was not difficult to obtain parts and supplies shortly after the placing of an order therefor. Now, the situation in that respect has greatly changed. Practically all companies from which necessary supplies [fol. 465] must be obtained are required to give preference to orders placed as a result of the existing national emergency, and the ability of the manufacturer to furnish needed parts promptly is contingent on whether or not orders having a higher classed priority are being filled. This condition, in my opinion, will continue for an indefi-

nite time in the future. As a result of this situation, the company cannot hope to obtain as prompt deliveries as it has enjoyed in the past, and, therefore, is forced to carry much larger stocks of all types of materials and supplies, so as to be prepared for such emergencies as they arise.

(8) Finally, there is a serious and growing danger of damage to the physical properties resulting from acts of sabotage, of cranks, of the common enemy, the fifth columnist, the spy, and the like. This company's properties are particularly vulnerable to this type of damage. While not mathematically measurable, it is my opinion and the opinion of the management of the company, that this is a real danger, particularly in view of the fact that the line serves one of the great industrial defense areas. Accordingly, we believe that the company must be prepared immediately to repair any damage that may result from such acts.

Q. Can this company afford, Mr. Sperry, to allow any condition to arise which will interrupt its service?

A. No, the service rendered by this company must be [fol. 466] continuous and it cannot afford to have its service interrupted either by act of God or by the hand of man. It is clearly in public interest that no such interruption be allowed to occur.

I believe it is clear, both for the company's own protection and in the public interest, that it be in a position to make such repairs promptly, as required, whether the necessity therefor arises from natural wear and tear, action of the elements, activities of public enemies, or other causes.

Q. In this connection have you made an effort to determine the amounts of additional materials and supplies which should be carried on hand by this company?

A. I have.

I have requested from each major operating department head of the company's organization a schedule of materials and supplies now on hand, stated at its cost, and

also the schedule of additional materials and supplies which, in the light of present circumstances, are now on order or should be immediately acquired. After receipt of [fol. 467] these reports from each department head, they were carefully checked by me and also by the responsible managing officers of the company.

In this connection I should explain that I have divided the amount of materials and supplies not now on hand into three classes: (1) those which are actually on order; (2) those which it is felt certain must and will be ordered within the next 90 days, and (3) those which the management deems necessary but which will not be required until sometime shortly after this 90-day period. The totals of these additional necessary materials and supplies are as follows:

Transmission Department, including Gas Measurement, \$138,976.80; Production Department, \$29,037.76; Compressor Department, including Gasoline Plant and Auxiliary Equipment, \$188,700.35; Communications Department and Cathodic Protection Department, \$15,662.06, and Transmission Department, Automotive Equipment, \$2,015.68.

Total, \$374,392.65.

Q. Now, Mr. Sperry, in order that the record may be entirely clear in connection with these various items, I wish you would state by departments, first the amounts of materials and supplies which are now on hand and on order; second, the amounts now on hand, now on order and which will be ordered within the next 90 days; and [fol. 468] third, the amounts now on hand, now on order, those which will be ordered within the next 90 days and those which will be placed on order shortly thereafter. I think you might read, by departments, the first item first.

A. The first figures I shall read are the materials and supplies now on hand or on order, combined.

For the Transmission and Gas Measurement, \$189,730.97;

For the Production Department, \$49,464.59;

Compressor Department and Gasoline Plant, \$120,331.63;

Communications and Cathodic Protection Departments,  
\$2,862.98;

Transportation Department, \$3,700.47. The second item, by departments, represents the materials and supplies on hand, on order, and to be on order within 90 days:

Transmission and Gas Measurement, \$249,074.91;

Production Department, \$65,288.50;

Compressor Department and Gasoline Plant, \$11,135.31;

Communications and Cathodic Protection Departments,  
\$9,877.80;

Transportation Department, \$3,700.47.

Q. Now, finally, I wish you would state, by departments, the amounts now on hand and now on order, those [fol. 469] to be ordered within the next 90 days, and those which will be placed on order shortly thereafter.

A. Transmission and Gas Measurement, \$297,270.24;

Production Department, \$66,779.50;

Compressor Department and Gasoline Plant, \$247,188.33;

Communications and Cathodic Protection Departments,  
\$18,525.04;

Transportation Department, \$5,716.15.

The total amount of materials and supplies now on hand and now on order stated at cost is \$366,090.64. The total of materials and supplies now on hand, now on order, and which will be ordered within the next 90 days, is \$497,154.31. The total of such supplies including those for which orders will be placed within the near future but not within the 90-day period is over-all \$635,429.26.

In my opinion the general conditions facing the country at this time and also facing this particular enterprise, render it imperative that this corporation order and obtain additional materials and supplies as and when it appears



that they should be stocked, to the final total amount which I have mentioned. In other words, it is my opinion that [fol. 470] the company should have either on hand or represented by cash available to make purchases as required within the near future, materials and supplies totaling, at cost, not less than \$635,000.

Q. Is it a fact Mr. Sperry, that before this company can sell any gas it must have its line filled with gas?

A. That is of course true. In other words, the company, before selling any gas, must first pack its line, and this line pack is always tied up as an investment not included in the ordinary plant accounts.

It amounts to approximately 851,578,000 cubic feet on a 16.4 pound pressure base and is calculated at an approximate value of 4 cents at the wellhead, this gas has an inventory value of \$34,063.44, not considering the costs incurred by the company to pump the gas through this long line to the point where it is located; or the additional value which the gas must therefore possess in place along the pipe line. For working capital purposes, I have rounded off the figure to \$34,000.

It is my judgment that the items which I have mentioned [fol. 471] constitute the minimum reasonable amounts of working capital currently needed in the conduct of the business of this corporation and on which it would receive no return unless they are included in the rate base.

These amounts consist of the following items:

Normal cash funds for operating expenses, \$470,000; cash for emergencies, \$100,000; minimum bank balances, \$200,000; prepayments, \$130,000; materials and supplies, \$635,000, and line pack \$34,000.

The total of these items is \$1,569,000 and it is my judgment that this company by way of what is ordinarily referred to as working capital should at all times have on



hand; either in materials and supplies, or in cash, not less than that amount.

Q. In expressing your opinion, Mr. Sperry, in respect to the amounts of working capital which you believe to be currently required in the conduct of this company's business, have you included any item referable to the company's new construction program?

A. I have not. Any additional working capital which may or will be required as a result of that program will be an increase over the amount to which I have testified.

[fol. 472] Q. Let me ask you, Mr. Sperry, whether it has been the actual practice of this company in the past to carry in cash amounts aggregating at least as much as the total to which you have testified?

A. It has. While the company has not at all times kept on hand the materials and supplies in the aggregate amount which we now deem necessary because of present and prospective conditions surrounding the operation of this property, the company has during recent years kept on hand substantial cash balances sufficient at all times to enable it to purchase such additional materials and supplies as might have been needed and which could then be promptly secured under the conditions heretofore existing. This is in addition to cash balances adequate for all the other purposes which I have enumerated. Over the last four year period, the aggregate actual working capital, represented by cash, prepayments, and materials and supplies which the company has actually maintained as a part of its current business operations, has been as of the dates listed as follows:

June 30, 1937, \$3,070,960.52; December 31, 1937, \$1,889,574.34; June 30, 1938, \$1,672,443.61; December 31, 1938, \$1,646,111.52; June 30, 1939, \$2,233,423.49; December 31, 1939, \$5,731,934.85; June 30, 1940, \$6,190,999.35; December 31, 1940, \$4,030,616.16; June 30, 1941, \$7,446,667.39.

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[fol. 475] OSCAR WILLIAM MORTON, was called as a witness on behalf of the Panhandle Eastern Pipe Line Company, and being first duly sworn, was examined and testified as follows:

## Direct Examination.

By Mr. Wheat:

Q. Where do you reside?

A. 21 West 69th Terrace, Kansas City, Missouri.

Q. Are you at the present time connected with Panhandle Eastern Pipe Line Company? A. I am.

Q. In what capacity? A. Rate engineer.

Q. How long have you served in that capacity?

A. Ten years.

Q. Now, Mr. Morton, I would like to have you state briefly the general nature of your education and experience.

A. Shortly after graduating from high school I attended a radio school and became a radio operator. Later, during the first World War, I was a radio instructor in [fol. 476] the Student Army Training Corps at Tulane University, New Orleans, Louisiana. Following the armistice I remained at Tulane University as a special engineering student until June 1921.

In February 1922 I was employed by the El Paso Electric Company under the Stone & Webster organization and commenced my work with that company as a draftsman in the engineering department. I later became maintenance engineer for the company and remained in that capacity until 1925 when I was transferred by Stone & Webster to Baton Rouge, Louisiana, where I was employed by the Baton Rouge Gas & Electric Company. I remained with the Baton Rouge company until March 1926 when I was transferred to City Gas Company, Norfolk, Virginia as assistant to the vice president of that company. I remained in that position until 1929 when I was transferred to the Virginia Electric & Power Company as head of its rate and insurance department.

After two years with Virginia Electric & Power Company I was employed by Panhandle Eastern Pipe Line Company and entered that employment August the first, 1931 as rate engineer, the position which I have occupied continuously since that time.

[fol. 477] During these past ten years I have been what might most nearly be described as a special problems man.

I have prepared numerous economic studies of all types and descriptions involving the operations of the company and it has been my duty annually, since I came with the company, to prepare the company's annual revenue estimates, also to estimate in advance the maximum day for each winter as the basis for pipeline construction programs.

During 1935, '36, '37 and '38 I made pipeline capacity studies for the company and collaborated with the members of its engineering staff in the preparation of annual pipeline construction programs. It has also been my duty each year during the past ten years to prepare the company's budget—

Q. (Interposing) Mr. Morton, just in that connection, do you mean by that that it is an annual budget?

A. I do not refer merely to an annual budget but what might be called a constant budget.

Q. A continuing budget?

A. That is it, a continuing budget. That is, I do not only prepare the annual budget, but I give the budget problem continuous attention and am constantly revising it during each year.

[fol. 478] As rate man for the company I prepare and supervise the preparation of all studies affecting the company's rates.

Q. Have you prepared a study showing costs incurred by this company in providing necessary capacity in its main pipeline prior to the time that that line became loaded?

A. I have prepared such a study.

Q. Did you reduce it to writing?

A. I have, in that I have summarized the results of the study in an tabulation which I have entitled "Basic Statistics Used in Calculating Interest, Ad Valorem Taxes and Operating Expense Attributable to Unused Capacity" and also "Five Different Methods of Calculating Interest, Ad Valorem Taxes and Operating Expense Attributable to Unused Capacity."

Q. Mr. Morton, is the two-page document which I now show you the study to which you have just referred?

A. It is.

[fol. 479] (Document Referred to was Marked Exhibit No. 38 For Identification.)

By Mr. Wheat:

Q. Was Exhibit 38 for identification prepared by you, Mr. Morton.— A. It was.

Q. Does it, in your opinion, correctly state the facts which it purports to state. A. It does.

The data contained on this exhibit shows my calculation of the costs actually incurred by Panhandle Eastern Pipe Line Company in providing unused but necessary capacity in its main line system prior to the time that the pipe line became loaded. Page 2 of the exhibit summarizes the data under five different methods of calculation.

Q. I note, Mr. Morton, that you stated that you have included operating expenses attributable to unused capacity. Will you please state what operating expenses you have so included?

A. Certain operating expenses such as the cost of gas purchased and also royalty expense vary directly with the amount of gas sold. Other expenses such as administrative and general expense do not vary materially with the [fol. 480] amount of gas sold. A portion of the latter is attributable to unused capacity and it is to these expenses only that I refer where I have used the caption "Operating Expenses" in this exhibit.

Q. I wish you would explain, briefly, Mr. Morton, what you did in connection with the preparation of the exhibit which has been marked Exhibit No. 38 for identification.

A. In general I developed and followed a procedure which allowed me to calculate the interest, ad valorem taxes and operating expenses attributable to unused capacity on five different methods. What I attempted to do was to compare various conditions obtaining during the first year when the pipeline could be and was operated under conditions closely approaching that for which it was designed with conditions during previous years when a considerable portion of interest, taxes and operating expense actually incurred was paid out on account of unused capacity in the line.

Q. What period did you select as being the first year when the pipeline was loaded?

A. The period from October 1, 1936 to September 30, 1937. This was a period during which I believe the conditions under which the line was operated could fairly be said very nearly to approach those for which the line was designed. Prior to that time there was a varying amount [fol. 481] of unused capacity.

Q. Mr. Morton, I wish you would explain briefly the source of the nature of the data which you have included on the first page of Exhibit 38 for identification.

A. The source of the information contained on the first sheet of the exhibit is the books and records of the company. The data contained on sheet 1 is merely a compilation of statistics, investment, gross revenues, thousands of cubic feet sold, maximum daily sales, line capacities, interest charges, ad valorem taxes and certain operating expenses by periods from April 1, 1932 to September 30, 1937. The periods selected are shown at the head of columns identified by letters.

The first period, Column A, is a nine-months period, April 1, 1932 to December 31, 1932. The next three periods, Columns B, C, D, are calendar periods. The fifth period, Column E, is another nine-months period and the sixth period, Column F, is a 12-months period.

Q. Why did you use two nine-months periods as shown at the heads of Columns A and E?

A. Many of our figures are more readily available on our books on calendar year bases. For this reason I tried to stick to calendar years where I could and I did so in the case of the second, third and fourth periods.

This necessitated the use of two nine-months periods. I might add that throughout the exhibit I have made proper adjustments for nine-months periods in all cases where comparisons are made with annual periods.

Q. Now, will you turn to page 2 of Exhibit 38 for identification and explain the nature of the calculations which you have headed "Direct Investment—Volume Method"?

A. In this first method I calculated the investment per thousand cubic feet of gas sold during the period October 1, 1936 to September 30, 1937, which period I have previously referred to as the loaded period.

I next determined the investment per thousand cubic feet sold during the previous periods using data shown on Sheet 1. Then, by comparing the investment per thousand cubic feet sold during the loaded period, Column F, with the respective investments per thousand cubic feet sold during each of the previous periods, Columns A, B, C, D and E, I arrived at the percentage of unused investment during each such period.

These percentages I then applied to interest, ad valorem taxes and my selected operating expenses incurred during these particular periods on account of unused but necessary capacity the resulting figure represents, in my opinion, one reasonable measure of the costs to this company attributable to unused but necessary capacity during the periods preceding the loaded period.

Q. Now, Mr. Morton, will you explain what you did in connection with the second method shown on page 2, Exhibit 38, that you headed "Direct Investment—Revenue Method"?

A. In this particular study I first determined the investment per dollar of revenue received during the early years as compared with the investment per dollar of revenue received during the loaded year and from these data I obtained a percentage of unused capacity for each of the preceding years.

These percentages I then applied to certain costs incurred during those previous years in the same manner as the percentages were applied under the first method. The resulting figures represent, in my opinion, another reasonable measure of the costs attributable to unused but necessary pipeline capacity provided during the periods prior to that which I have termed the loaded period.

Q. Now, will you direct your attention to the method shown on page 2, Exhibit 38, which you have headed "Direct Investment—Maximum Day Method" and explain what you did under that method?

A. In developing the figures under this third method I followed the same plan as was followed under the first and second methods which I have described, except that in connection with this third method I compared the investment per thousand cubic feet sold on the maximum day



during the early periods with the investment per thousand cubic feet sold on the maximum day of the loaded period.

In my opinion, the result shown under this third method is also a reasonable measure of the costs attributable to unused but necessary capacity provided in this pipeline prior to the date it became loaded.

[fol. 485] Q. Now, Mr. Morton, will you turn to your fourth method which you have headed "Adjusted Base Year—Volume Method" and explain what you have done in connection with that method?

A. Under this method I compare the actual volume of gas sold during the early periods with the volume sold during the loaded year.

Q. Did you make a direct comparison between the volume of gas sold in the loaded year with that sold during previous years?

A. No. I adjusted the quantity sold during the loaded year to a basis comparable with former years before making any comparisons.

Q. I wish you would explain why you did that.

A. Just prior to the loaded years we added enough compressor stations to our system to enable us to carry a full load in our line. It would not be fair to compare directly the volume of gas sold during previous years when the capacity of the line was 80,000,000 per day.

Q. Eighty million what?

A. Cubic feet, 80,000,000 cubic feet per day with the volume of gas sold during the loaded year when the capacity had been increased to 125,000,000 cubic feet per day.

Q. Well, Mr. Morton, how did you go about adjusting [fol. 486] the volume during the loaded year to a proper basis for comparison?

A. I reduced the volume sold by  $45/125$  which is the difference between the capacity during the two periods or, to put it another way, I multiplied the volume during the loaded year by  $80/125$  in order to arrive at an adjusted volume for comparison with other years.

Q. What did you do next?

A. I then compared the volumes during the previous years with the adjusted volume during the loaded year.

From that point the procedure was the same as described in Methods 1, 2 and 3.

Q. Now, is it your opinion that this method also represents a reasonable method of determining the costs of this company attributable to unused but necessary capacity provided during the period prior to that which you have termed the "loaded period"?

A. Yes.

Q. I note that you have also included a fifth method which you have termed "Adjusted Base Year, Revenue Method." I wish you would explain what you did in connection with that method.

A. Under this method I followed essentially the same procedure as that which I outlined in connection with Method No. 4, my adjusted base year volume method. In other words, I have compared each preceding period to the loaded period on the basis of revenues instead of volumes, [p. 487] but I have adjusted the revenues during the loaded year upon the ratio of the capacities during the loaded and unloaded periods just as I did in the fourth method. It is my opinion that this fifth method also constitutes a reasonable approach to the problem of determining the cost attributable to unused but necessary capacity in the pipeline prior to the loaded year.

Q. Have you included in this study of yours any of the facilities of the company located near Kansas City and sometimes referred to as the "local area system"?

A. No, I have not included any such facilities. They were not connected with the main line system of the company during the years covered by my study of costs attributable to unused capacity and since my study concerns main line capacity only and the cost of maintaining excess capacity in that main line during certain periods, I have eliminated the investment, sales and charges connected with what we term "local area operations."

Q. Does the Panhandle Eastern Pipe Line Company also own certain natural gas production facilities in western Kansas which are not connected with its main pipe line system?

A. Yes, the company owns certain production facilities in Western Kansas which are used to supply gas to the Argus pipeline system but which are not connected with

[fol. 488] its main line system from the Texas Panhandle field to eastern markets. I have, therefore, in this study eliminated all investment, sales and charges connected with that operation.

Q. Is it a fact, Mr. Morton, that during certain of the earlier years of the company's pipeline operations gas in varying amount was transported for the Northern Natural Gas Company?

A. Yes, that is correct. During the early years we transported some gas for Northern Natural Gas Company through a short section of the main line in western Kansas. This was a temporary arrangement and it was discontinued as soon as our full load came on in 1936.

I have, therefore, eliminated from this study all revenues received from this source and also all figures covering gas transported for Northern Natural as well as the investment in that portion of the Panhandle Eastern Pipe Line Company's facilities used in such service.

Q. What is the effect, in general, of these eliminations?

A. The effect of these eliminations is that none of the above facilities appear as unused capacity in this study.

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[fol. 491] P. McDONALD BIDDISON was called as a witness on behalf of the Panhandle Eastern Pipe Line Company, and being first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Wheat:

[fol. 492] Q. Where do you reside?

A. Dallas, Texas.

Q. Have you been employed by the Panhandle Eastern Pipe Line Company as consulting engineer?

A. I have, several times.

Q. On more than one occasion? A. Yes, sir.

Q. And have you been employed to make certain studies in connection with the pending case? A. I have.

Q. I wish, Mr. Biddison, that you would state rather fully your background, education and experience with particular reference to the natural gas business and your knowledge

of the properties and operation of the Panhandle Eastern Pipe Line Company.

A. I am a graduate of Kansas State College with a degree of Bachelor of Science in Electrical Engineering, Class of 1904.

After graduation I spent about one year on miscellaneous work as draftsman, electrician and stationary engineer in cement plants at Iola, Kansas.

Following this I began work in the natural gas industry at Columbus, Ohio, May 20, 1905 on work for the Kansas Natural Gas Company, which company at that time was constructing a transmission system to serve markets in [fol. 493] Kansas and at Kansas City, Missouri. I worked under the direction of the then chief engineer for the Logan Natural Gas & Fuel Company who was at the same time consulting engineer for Kansas Natural Gas Company.

In 1906 I became chief engineer for the Logan Natural Gas & Fuel Company at Columbus, Ohio and in 1907 I went to Joplin, Missouri as sales engineer with the Hope Engineering & Supply Company who were engaged in the design and construction of gas producing, transmitting and marketing equipment.

In the fall of 1907 I became assistant to the chief engineer of the Kansas Natural Gas Company and was stationed at Independence, Kansas. My duties were the supervision of construction of gas transmission and compression and measuring and regulating installations.

In the fall of 1908 I became construction engineer for the Columbia Gas & Electric Company upon the installation of their system from West Virginia to Cincinnati, Ohio. I had charge of construction of the western end of their pipeline system from a point near Alexandria, Kentucky through the suburbs of Cincinnati and across the river into Cincinnati.

In the following year, 1909, I designed and constructed their compressor station at Kenova, West Virginia.

During 1910 I was construction engineer for the Ohio [fol. 494] Fuel Supply Company in Ohio and overhauled some of their compressing equipment and installed additional such equipment at Homer, Ohio.

During 1911 I was mechanical engineer with the Texas Company at their Port Arthur, Texas refinery. I was engaged in the design and installation of a water supply system for the refinery, additional boiler plant capacity and electrical generating installations. I also installed an exhaust system throughout the refinery and assisted in the design of foundations and reinforced concrete structures for a wax plant and an oil filtering installation.

In 1912 I returned to Ohio as construction engineer for the Ohio Fuel Supply Company and its affiliated companies. I remained with that organization until the spring of 1919.

During this period I acted as consultant to various departments of this organization on technical matters and I designed and installed the gas compressing stations, reinforced concrete shop buildings, regulating and metering equipment and beginning in 1916 I carried on experimental work in connection with representatives of the United States Bureau of Mines upon the extraction of natural gasoline from the natural gas.

I later designed and built gasoline plants for the Ohio Fuel Supply Company and for the Ohio Fuel Oil Company [fol. 495] in West Virginia and for the Lone Star Gas Company in Texas.

During the period from 1917, about, until the spring of 1919 I supervised the operation of the gasoline production department of the Ohio Fuel Oil Company in West Virginia.

During the period 1914 to 1919 I also acted in the capacity of consulting engineer to the Lone Star Gas Company whose offices were then located at Fort Worth, Texas and which company at that time had a transmission system from Petrolia fields near Wichita Falls, to Fort Worth and Dallas and other Texas points as well as connections for gas supply from Oklahoma fields.

During this period I predicted for this company the amount of extensions necessary to be made to their transmission facilities in order to meet their increasing markets, the amount of additions to be required through their com-



pressing facilities and the amount of additional drilling required to be done in the respective producing areas in order to maintain a supply of gas for those markets.

In addition, during the period of the World War I acted as consulting engineer on war gases to the United States Bureau of Mines and in that capacity supervised the construction of helium-producing plants at Fort Worth, Texas and at Petrolia, Texas. I also conducted a search during that period in every known gas-producing section of [fol. 496] United States for helium-bearing natural gas.

In the spring of 1919 I went to Mexico as construction engineer for the A. G. W. I. Companies. These companies were subsidiaries of the Atlantic Gulf and West Indies Steamship Company. I spent one year in this connection upon the design and construction of oil pipelines, oil pumping stations and off-shore bulk oil loading stations.

At the conclusion of my year with this organization I spent nearly one additional year in Mexico upon similar work for the Tide Mexico Company, a subsidiary of the Tide Water Oil Company.

Upon the conclusion of that work I was idle for a few months and then became associated as a consulting engineer with the then owners of the Dallas and County Gas Companies at Dallas, Texas and of gas leases in the Panola County area of eastern Texas and the Monroe field of Louisiana.

While with these properties I acted as consultant to the Dallas Gas Company and the County Gas Company and I acted as manager of the producing, transmission and distributing properties and gasoline and carbon manufacturing properties in the East Texas field and in the Monroe field. While there I built a carbon black plant, a gasoline plant, certain gathering lines and marketing lines and distribution systems in and near the Monroe field.

I also built a portion of a pipeline from the Monroe [fol. 497] field to Baton Rouge, which line was later sold to the Interstate Natural Gas Company. Also during this period I made investigations of the markets which could be served by pipelines from the Monroe field and reported as to their feasibility.



I reported on projects to pipe natural gas to the Birmingham and Atlanta markets, to Memphis, to New Orleans, to Houston, to Dallas and to other minor markets. Some of these markets were subsequently served from the Monroe field, some of them upon reports which I made and some upon other reports.

In 1927 those properties were sold, the East Texas and the Monroe field properties being acquired by interests affiliated with Electric Bond and Share group. The distribution properties at Dallas went to another organization.

I remained with the properties affiliated with Electric Bond and Share until the fall of 1928 and during that period I participated in negotiations for the piping of natural gas to Memphis. I supervised the construction of the pipeline from Baton Rouge into New Orleans and supervised generally the operations in the field.

In the fall of 1928 I severed my connection with those properties and began business as a consulting engineer at Monroe, Louisiana. The major work which I performed during the year 1928 was to report upon a project of piping [fol. 498] natural gas to Salt Lake City. This line was built upon the basis of my report.

I also made an evaluation of the properties of the then Fort Worth Gas Company, a distribution system at Fort Worth and testified as to those valuations before the Federal Court at Fort Worth.

About the first of January, 1929 I became consulting engineer to the Southern Natural Gas Company who projected a pipeline system from the Monroe fields to Birmingham and Atlanta and other points and I acted as consultant to Southern Natural Gas Corporation during that construction period of 1929, 1930 and the first half of 1931.

In the fall of 1931 I moved my office to Dallas, Texas and have been located there ever since. My work since that date has been largely in connection with valuation of properties in connection with rate cases.

I have recently, however been engaged by Phillips Petroleum Company in connection with a projected natural gas pipeline company from the Panhandle fields of Texas

and the Hugoton fields of Kansas, Oklahoma and Texas into the southeastern Wisconsin areas and have made estimates and reports to them thereon and appeared before the Federal Power Commission and the Public Service Commission of Wisconsin in respect to those matters.

Q. In general, then, during the past decade you have, in [fol. 499] the practice of your profession in Dallas, made numerous studies as I understand on the valuation of natural gas properties.

A. I have for a number of the larger gas companies operating in the Southwest.

Q. Such as which companies?

A. Lone Star Gas Company and its affiliates and subsidiaries, the Arkansas Natural Gas Company and its affiliates and subsidiaries, the Cities Service Gas Company and the United Gas System and for several smaller gas companies operating in that general area.

(Interposing) I might also mention that I have done some evaluation work and report work for the Natural Gas Pipe Line Company of America.

The first work which I now recall doing for Panhandle Eastern Pipe Line Company was in March 1937 at which time I made an investigation of the capacity of that system and of what that capacity would be upon the completion of some proposed additions to their transmission and compressing system property.

[fol. 500] Later on in 1937, I partially completed a valuation of those properties and in 1938 I made a complete valuation of the properties of Panhandle Eastern Pipe Line Company and its subsidiary companies.

I also made in 1937 and in 1938 a study of the operating pressures on Panhandle Eastern Pipe Line system to determine the degree of safety in operating that pipeline system at a maximum pressure at compressor stations of 500 pounds and reported to the Panhandle Eastern Pipe Line Company my findings thereon.

I also made in 1937 and 1938 an investigation of the amounts which Panhandle Eastern Pipe Line Company

was accruing annually in its reserve account for the purposes of depreciation and depletion and amortization and reported thereon and have made subsequent check studies on that matter.

I have also upon several occasions since 1937 made certificates requisite in connection with financing. Some of these certificates appear in registration statements filed with the Securities and Exchange Commission.

I think that covers, generally, the work which I have done up to the preparation of a valuation of the plant property and business as of June 30, 1941 which work has just been completed.

Q. And is the document which I now show you a re-[fol. 501] port covering the work which you just mentioned? A. It is.

Trial Examiner: This large document containing 968 pages and entitled "Panhandle Eastern Pipe Line Company and Subsidiary Companies, Reproduction Cost New of Plant Property and Business as of June 30, 1941, P. McDonald Biddison, Consulting Engineer, Dallas, Texas," will be marked for identification as Exhibit 39.

Q. Was the document which has been identified as Exhibit 39 prepared by you and under your direction, Mr. Biddison? A. It was.

Q. And in your opinion does it correctly show what it purports to show? A. It does.

[fol. 510] Q. Mr. Biddison, at the conclusion of the hearing yesterday afternoon, I think you had just identified the document which has been offered for identification in this record as Exhibit No. 39. Does that document contain a letter of transmittal from you and, if so, where is that to be found and what does that letter contain?

A. The letter is page 1 of the exhibit. It identifies the work as being my work.

Q. And do you state a conclusion in that letter?

A. Yes, the conclusion is that the cost of reproduction new of the consolidated plant property and business of Panhandle Eastern Pipe Line Company and subsidiary companies of June 30, 1941, is \$85,262,766.09.

I wish to explain in reference to the subsidiary companies that they are represented by a single company, Illinois Natural Gas Company, owning certain properties in the State of Illinois.

Q. And the data, Mr. Biddison, in respect to that company, as well as the data in respect to Panhandle Eastern Pipe Line Company, as such, is included, is it, in the [fol. 511] material which is contained in Exhibit 39?

A. Yes, as if they were one corporation.

Q. Now, Mr. Biddison, will you turn to page 967 of Exhibit 39 for identification and also page 968 and will you tell us whether these two pages contain an index by the consultation of which the data which you have included in this large exhibit on individual items and units of this property can be found?

A. Yes, it does, and the main subdivisions of the index correspond to the main subdivisions of the summary and of the body of the report. Q

Q. Now, having drawn the attention of counsel and parties here to the index, I wish you would return now to page 2 of Exhibit 39 for identification.

A. Page 2 contains a summary of the estimate by main property divisions, production system, transmission system, gasoline system, general system and certain other additional values beyond those of the four main general groups of property showing, in toto, in Column C, in line 36 the reproduction cost new of the plant property and business in the amount of \$85,262,766.09.

Q. That is the figure which you included in your letter of transmittal on page 1, is it?

A. That is correct and the various subtotals shown on page 2 are developed by property groups in subsequent [fol. 512] pages of the report.

Q. Now, Mr. Biddison, I wish you would turn to page 3 which is headed "Panhandle Eastern Pipe Line Company and Subsidiary Companies' Production System Property Summary," and in general outline tell us what you have done and what is included in this exhibit with respect to production system property.

A. On page 3 are shown five groups of property included as production system property. For each of those groups there follows in subsequent pages the detail. Pro-

duction system land shown on page 3 in the amount of \$971.02 is detailed on page 4. It consists of two tracts which are described on that page, the first one in the amount of \$299, the second in the amount of \$672.02, producing a total of \$971.02, which is carried forward to page 3.

The next group of property, beginning on page 5 is leaseholds, which is shown on page 3 amounting to \$8,695,524. These leases are set out on page 5 by classifications and as to locations.

This data, in toto, is taken from the report, an estimate by Mr. R. J. Wallace, which has been previously testified to by him and placed in evidence in this case as an exhibit.

Q. Now, will you turn to the next item which is "Production System Gas Wells and Equipment"?

[fol. 513] A. This is shown on page 3 in the amount of \$2,053,884.39 and is detailed beginning on page 7.

Q. Well, the total is shown on page 6, is it not, or in the recapitulation?

A. There is a recapitulation of gas wells on page 6, that is correct.

Beginning on page 7, is shown the details of gas wells. For each gas well I have shown the amount of pipe and casing in the well. This data has been taken from the plant and equipment records of Panhandle Eastern Pipe Line Company and compared with the records on file in the production department of Panhandle Eastern Pipe Line Company.

With respect to the first well, Sanford No. 14, showing, in the beginning at line 2 on page 7, there are 82 feet of 24-inch surface pipe, 2,245 feet of 10 3/4-inch casing, 122 feet of 6 5/8 casing. This pipe and casing has been priced out at the prices f. o. b. mill for pipe and casing current as of June 30, 1941.

I have made an analysis of gas wells drilled in the Panhandle field under contract for Panhandle Eastern Pipe Line Company in 1940 and 1941 and I have found from an analysis of those jobs that the valves and fittings priced



at the fittings prices as of June 30, 1941 amounted to [fol. 514] \$416.84 per well on the average. I have therefore applied to each well in the Panhandle field of Texas that price for the valves and fittings on a well.

This same analysis showed that for the work done by the contractor in drilling a well, the cost was \$2.83 for each foot of depth of the well, I have, therefore, applied in the case of this Sanford No. 1-4 well a price of \$2.83 to the total depth of 3,100 feet to arrive at the costs for the drilling contract on this well.

In addition to those costs there are some costs incurred by the owning company, some miscellaneous hauling, some rigging expense, some water supply expense and some fuel expense.

The same analysis previously referred to shows that where a well is not acidized that expense amounted to \$3,979.32.

Q. That is on the average per well?

A. As used at line 26 on page 7 and where the well was acidized, that cost amounted to \$5,468.62 as shown at line 8 on page 7, the Sanford well having been acidized and the Masterson well not having been acidized.

Q. Now those figures that you have just mentioned are averages per well drilled. Is that true?

A. That is correct, taken from the analysis of wells drilled in 1940 and 1941 under contract.

[fol. 515] Q. Well, Mr. Biddison, what I have in mind is, that from pages 7 to 19, inclusive, you have included the individual analysis of the wells of the company in the Panhandle field of Texas, have you not?

A. That is correct and on page 19 I have taken a subtotal at line 26 of \$944,628.76. To this subtotal I have added an item to cover stores expense, the expense of accounting for materials in the field, the receipt of materials and their disbursements and accounting.

This stores expense amounts to 1 percent on pipe and casing and to 4 per cent on miscellaneous valves, fittings and other materials. Then I have added the amount of



freight on the casing, there being 52,840.3 hundredweight of pipe and casing at a 92 cents freight rate, making the freight for these Texas wells amount to \$48,613.08 and making the total wells in the Panhandle field, as shown at line 29 on page 19, \$996,481.52.

Q. That is also shown, is it not, Mr. Biddison, on page 6, your recapitulation?

[fol. 516] A. Yes, sir, that figure is carried forward to page 6.

Q. All right, now will you turn to page 20 and state what you did with respect to the gas wells in the Hugoton field of Kansas?

A. Beginning on page 20 and continuing through to page 36, I have evaluated the gas wells in the Hugoton field of Kansas in precisely the same manner that I have related for the wells in the Panhandle field of Texas, and on page 36 I have arrived at the total, line 5, of \$1,041,824.06 which has been carried forward to the—

I wish to explain with regard to these wells in the Hugoton field in Kansas that some of these wells are partnership wells in which Panhandle Eastern Pipe Line Company owns a one-half interest. That is true, for example, of all the wells on page 20 and the one-half interest is shown and set up and carried into the totals.

Q. That is true with respect to every well as to which this company owns a one-half interest in that field, is it not?

A. That is correct.

[fol. 517] Q. Well, will you turn, then, to page 37 which discusses the gas wells? There is a recapitulation apparently of the gas wells of the local area and will you state what you did in that connection?

A. There is an area close to Kansas City, south of Kansas City of shallow gas production in which for some 12 or 13 years Panhandle Eastern Pipe Line Company or predecessor owners have been producing and marketing natural gas. Panhandle Eastern Pipe Line Company has

remaining 22 wells in this area, 11 in Kansas and 11 in Missouri. On pages 38 and 39 I have listed those wells.

The amounts which I have set out as their reproduction cost new are their original cost. They are not the figures now on the books as the cost of Panhandle Eastern, but are the cost to a predecessor company as shown by books of that predecessor company.

Q. In other words, with respect to the wells of the so-called local system you have used the original cost and have shown that total on page 37, also bringing it back in recapitulation to page 6, is that true?

A. That is correct. These wells will show a very small value when these amounts are reduced to present [fol. 518] value I don't think it makes much difference what you start with on property of that class.

Q. Now, Mr. Biddison, the total shown on page 6, your recapitulation for gas wells, is the total, is it not; shown on line 3 of page 3, the summary of your reproduction system property estimates?

A. It is.

Q. Now, will you turn to page 40, whereon you summarize your estimates with respect to other production system structures and state what that shows and what you did?

A. Production system structures are shown in summary form on page 40 and in detail in subsequent pages up to and including page 44. They consist of cottages and warehouses and appurtenant structures at three locations. Two of these locations are in the Panhandle field of Texas for the use of the production forces and one it as Hugoton, Kansas, in the Hugoton field.

The first item on page 41 is the warehouse structure at the Fritch Camp. This item has been estimated in detail from its component parts, and as a completed item I have estimated it, as shown on line 12, at \$3,231.27. Incidentally, that is slightly under 13 cents per cubic foot of content. [fol. 519] The next item are the cottages located at this point. These cottages have been priced at \$3,830 each, based upon a recently completed contract for similar cot-

tages at the Sneed compressor station a few miles distant and in the Panhandle field of Texas.

The garage in similar fashion has been estimated from the cost under a contract, for recently completed garage at Sneed Camp.

The tool house has been estimated on the basis of the cost per cubic foot of structures of this type. The balance of the various items have been partially taken at the costs for similar work incurred under recently completed contracts at Sneed station and for some minor miscellaneous items they have been taken at the figures shown by the books.

Q. And the total is shown on page 42, is it not?

A. That is correct, at \$20,940.23 for the structures at the Fritch warehouse site.

Q. Now will you proceed to the next item which is the Zofness Camp in Texas and state what you did?

A. The items at the Zofness Camp have been handled in the same fashion as I have related for the items at the Fritch warehouse site, as have also the items for the Hugoton Camp beginning on line 13, page 43.

[fol. 520] Q. And you have shown a summary on page 40, have you not, line 7 of the total of other production system structures and have carried that forward in your general summary of other production system structures on page 3 in the amount of \$42,188.75?

A. That is correct.

Q. Now, will you proceed to the item of drilling and clean-out equipment?

A. This is the equipment for cleaning out and reconditioning gas wells. The amounts shown are the amounts carried upon the books of the company for that equipment. A considerable amount of such equipment has been retired within the last two or three years and this is the selected equipment out of a considerably larger original amount.

Q. This is the equipment that is still in use, is it?

A. That is correct.

Q. Now, the total for that figure shown on page 48 and brought forward on line 3 on page 45 is the same total, is it not, as is carried on line 5 of page 3, your summary production system property?

A. That is correct and the sum total from page 3 of \$10,813,244.62 has been carried forward to the corresponding item on line 7 of page 2.

[fol. 521] Q. Well, Mr. Biddison, now will you turn to page 49 on which appears a summary of your reproduction cost new estimates in respect of transmission system property in the amount of fifty-five odd million dollars and tell us whether that is the same amount that you have carried at line 17 of page 2?

A. It is.

Q. Now, will you proceed to discuss what you did in your estimates with respect to each of the items of transmission system property?

A. Transmission system property constitutes the largest single group of property in this valuation. The first item shown on page 49 at line 1 is transmission system land in the amount of \$55,909.84. That total is carried [fol. 522] forward to line 8 on page 50 which is a summary of transmission system land.

The details of transmission system land begin on page 51 and continue to include page 54. All items of transmission system land are taken from the plant and equipment records of Panhandle Eastern Pipe Line Company and the Illinois Natural Gas Company.

I call attention to the fact that on page 51, line 9 and lines 10 and 11, I have listed two parcels of land which are not in use and have deducted them from the gross amount of land to arrive at the net figure of \$55,909.84 for land.

Q. Well, is that net figure the cost shown on the books of the company for the parcels of land in question?

A. It is. I have used the cost as shown on the books because I believe that for land and for rights-of-way that the costs actually incurred are the best obtainable measure of what would be incurred under reproduction.

Q. Now, Mr. Biddison, will you turn to page 55 and state what you have done with respect to rights-of-way, the discussion which I believe continues to and including page 71?

A. On page 55 I have shown a summary for rights-of-way. I call attention to the fact that under transmission system rights-of-way I have included rights-of-way for [fol. 523] well lines as well as for the main lines, whereas under the prescribed classification of accounts some of these rights-of-way would be under the division of production property and some would be under the division of the communication system. I have them all in this one classification beginning on page 55 at a total shown on line 13 of page 56 of \$1,278,521.36. These figures are all taken from the records and are the cost to Panhandle Eastern Pipe Line Company for those items. The total amount has been carried forward to line 2 on page 49.

Q. Also line 10 on page 2, has it not? A. Yes, sir.

The next item of transmission system property was transmission measuring and regulating station structures. These are the buildings which house the regulating and measuring equipment. These structures are summarized on page 72 for a total, as shown by line 35, of \$104,475.27. They are detailed in subsequent pages up to and including page 139.

It may be noted on page 73 that the first item has to do with structures for production measuring stations in Texas, buildings constructed after a standard drawing No. 4,182, that specification being on line 2 of this page.

[fol. 524] In this field there are 55 such buildings, six-foot by eight-foot by seven-foot as shown on lines 7 and 8 and one similar one, eight-foot by ten-foot by seven-foot.

The standard building six by eight by seven has been estimated in detail at current prices for the materials therein and for the labor for such construction and that price has been applied to the 55 buildings. A corresponding price per cubic foot has then been applied to the other building at lines 9 and 10.

Following on page 74 is a listing of the buildings included in the 56 buildings shown on page 73.

Q. Now, does somewhat the same procedure follow with respect to the buildings added on page 76?



A. That is correct, those buildings are for the housing of equipment to measure gas produced in the Hugoton field in Kansas. On page 76 is shown the value at line 8 for 65 such buildings and the buildings are subsequently listed on pages 77 and 78.

Q. Have you done the same thing with respect to other buildings of this type, beginning on page 79 and following through to the end of this discussion on page 139?

A. That is correct.

[fol. 525] A. I might explain further that beginning on page 83 the process is repeated for those structures housing measuring equipment which measures gas purchased in the Texas field, and on page 85 are shown the values for the building housing equipment measuring gas purchased in Oklahoma, and on page 87 is shown the value for the structures housing the equipment measuring purchased gas in Kansas, and on page 90 we have a similar statement for the purchased gas stations in the local area of Kansas, and on page 97 similarly the buildings for the purchased gas stations in the local area in Missouri.

Q. And similarly for all the other items down to and including those covered on page 139, Mr. Biddison, you followed the same procedure, did you?

A. That is correct.

Q. And you have shown your total on page 72, which has been brought forward, has it not, to page 49 and then to the final summary on page 2?

A. That is correct.

Q. Now, will you turn to the next item which is headed "Other Transmission System Structures," beginning on page 140 and state what you have done with respect to those structures?

[fol. 526] On page 140 is the summary of other transmission system structures amounting to \$382,920.59 as shown at line 29. That amount has been carried forward to page 49.

Q. And page 2, also, Mr. Biddison?

A. And to page 2.



The items covered are the residences at compressor stations and various warehouses along the system for the use of the transmission department, these warehouses carrying supplies for current operations as well as equipment and supplies for emergency work. The detail begins at page 141 and continues to include page 154.

Q. These include only the structures here, do they not, and not the equipment contained in them?

A. That is correct. The item is named "Other Transmission System Structures" and it is the structures that are included, not the supplies or the equipment.

These structures as to cottages have been priced on the basis of the cost of similar structures recently completed at compressor stations.

As to garages, they have also been priced on the basis of the contract price for garages completed in 1940 and '41 of similar types.

The other miscellaneous items in these camps at the [fol. 527] various compressor stations have been taken from cost recorded in the plant equipment record of the Panhandle Eastern Pipe Line Company.

[fol. 528]. I was going to explain that with reference to some of these warehouse buildings, like those shown on page 147 and page 148, that they have been priced on the basis of 12.82 cents per cubic foot, based upon the detailed estimate for a similar structure at the Fritch warehouse site.

I think with those explanations I have given enough to show the method used in the determination of values for other transmission system structures.

Q. Now, Mr. Biddison, turning to page 155, which is headed "Summary—Transmission Measuring and Regulating Station Equipment," and which shows a total of \$491,685.32; as also carried back to line 5 of page 49 and to line 13 of page 2, will you please state what you have done with respect to this particular class of property?

A. On page 156 I have shown the measuring stations which measure gas produced by Panhandle Eastern in Texas.

There are 11 measuring stations whose valves and fittings correspond to Standard Drawing No. 4143, and 46 whose valves and fittings correspond to Standard Drawing No. 4144.

I have determined that the valves and fittings called for by Drawing 4143, priced at prices as of June 30, 1941, at [fol. 529] the discounts from catalog prices at which Panhandle Eastern is currently buying this class of equipment, amounts to \$233.13 per installation; that the valves and fittings called for by Drawing 4144 correspondingly cost \$339.19.

Q. — Per installation? A. Per installation.

That of these 57 stations, 37 of them have the type of clock shown by line 8 on page 156, and 13 have the type of clock in the meter as shown by line 9—

Q. (Interposing) I think you misspoke yourself, Mr. Biddison. There are 34 that have the type of clock shown on line 8 instead of 37?

A. 34 is the correct figure.

(Continuing) And similarly as to other items as shown on that page.

Pricing these stations out on this basis, I derive, at line 22, a total amount of \$36,864.26. Those stations are listed, then, on page 157 and page 158, those pages showing whether the stations conform as to valves and fittings to Drawing 4143 or to Drawing 4144.

Q. And the total you have carried back on to your summary page 155, have you not, line 2?

A. That is correct.

I might add that I have shown, on page 156, an item of [fol. 530] stores expense, at line 21, which is 4 per cent of the materials included in the tabulation on page 156.

That figure is the figure which I have determined to be the usual cost for accounting for stores in the field, from a study of that expense as incurred by the Lone Star Gas Company system and the system of the Arkansas-Louisiana Gas Company.

Q. Now, the next item is "Hugoton field, transmission measuring and regulating station equipment," is it not?

A. Yes.

Q. Starting at page 159?

A. Yes, sir; and that is handled in the same fashion as I have described for the production stations in the Texas field.

Beginning at page 162, I have handled the production stations in the local field, on the Kansas side, in the same fashion; and at page 164 the production stations for the local area, on the Missouri side, in the same fashion.

Now, other classifications of measuring stations throughout have been handled in identically the same manner.

Including all the various points and at the various localities.

[fol. 531] Q. Now, will you turn, then, to page 351, Mr. Biddison, at which point you have included a summary of transmission mains?

A. Let me ask you in that connection whether the total of \$43,025,965.41, shown at the bottom of that page, is the same total shown and carried forward by you to line 6 of page 49, your summary of said transmission system property and to line 14 of page 2, your summary of your entire reproduction cost estimate? A. It is.

Q. Now, will you proceed to discuss what you did with respect to transmission mains?

A. The first group shown on the summary, page 351, is well lines. Well lines have been shown in a recapitulated form on page 352, and beginning on page 353 the well [fol. 532] lines to wells owned by Panhandle Eastern Pipe Line Company, in Texas, are listed by their number as they appear of record.

In column A is shown the line number, the line size, and the weight of pipe in the line;

In column B is shown the number of feet in that line;

In column C is designated the unit to which the quantity in column B applies;

In column D is shown the unit cost per cubic foot of pipe, f. o. b. mill—

Per lineal foot. F. o. b. mill.

(Continuing) In column E the quantity in column B has been extended at the price in column D to produce the amounts in column E.

[fol. 533] Now, where did you obtain the prices which you used under column D?

A. Those prices are the earload list prices with the discounts properly applying as of June [31] 1941. (Pause)

This list is National Tube List No. 14, of July 1, 1938.

Continuing on to page 354, on line 32 I have taken off a subtotal of the materials required to construct these lines, in the amount of \$55,837.80, as shown at line 32. To that I have added an allowance for stores expense, which is 1 percent on pipe and 4 per cent on the other materials shown on line 33, which produces line 34, the subtotal of materials and stores. I have then continued with an estimate of the cost to install these materials.

Q. How did you arrive at that estimate?

A. These estimates of the cost to install are based upon [fol. 534] contract prices recently paid by Panhandle Eastern Pipe Line Company in that area for similar work.

I have estimated, as shown by line 37, that the 4½ inch lines would be laid under contract price at 13 cents per foot, and that the 6½ inch lines would be laid at 18 cents per foot.

I have subsequently shown an estimate of cost of installation of the valves and of the cost of painting the lines, and have arrived at a subtotal, as shown on line 5 of page 355, for installation of those lines of \$15,529.41.

I have then computed the freight on this pipe into that area at the freight rates in effect as of the valuation date. As shown on line 8, page 355, the freight on the 4½ inch pipe would be \$3,712.51, and on the 6½ inch pipe, shown on line 9, \$6,245.40.

I have thereby produced a total for the production well lines in Texas, as shown by line 11, page 355, of \$61,750.29.

Upon re-examination of this total, I find that there should have been an allowance in the case of each of these lines for making the connection to the line to which it joins. This has not been included.

[fol. 535] The next item is similar in character, beginning on page 357, and covers production well lines in Kansas, Western Kansas, that is, in the Hugoton field.

Those lines were handled in exactly the same fashion as I have related for the production well lines in Texas.

Then, if you refer to page 351 you will find that the next page group is the gathering lines. This system of lines takes gas from the smaller well lines into a system of larger lines verging toward a central point.

With respect to gathering lines, as illustrated on page 363, I have set forth in respect to each line the pipe, valves, fittings and other materials in that line.

This data is taken from the plant and equipment records and the engineering department records and the engineering department maps of Panhandle Eastern Pipe Line Company. All those sources have been used in the compilation of the inventory of this equipment.

I have also had access to the field notes of the engineering department for cross checking on some items where it was required.

Now, beginning on page 389, for those same Texas gathering lines, I have shown the estimate of the cost of installation, taking each line as an individual unit in the same fashion as I have previously set forth the materials in that line.

The estimated installation costs are based upon recent contract work of a similar nature performed for Panhandle Eastern Pipe Line Company by contractors. The [fol. 537] estimate of the installation cost continues to include page 405, where at line 9 the installation cost on Texas gathering lines is shown to be \$235,828.43.

Then, continuing on page 406, I have shown the freight on pipe in these Texas gathering lines, by sizes and quantities, the total being shown on line 19 at \$180,308.36.

Following, on page 407, still in the Texas gathering line group, we have a river crossing of the Canadian River, which is estimated in detail, as shown by line 20 on page 408, at \$61,010.35; and on this same page, 408, at line 21 is shown the total cost for Texas gathering lines of \$1,249,988.32, which is the item carried forward to line 1 of page 362.

Beginning on page 409, we have Kansas gathering lines. These have been handled in precisely the same fashion as the Texas gathering lines, and in that fashion I have arrived, on page 455, at line 22, at the total of \$2,011,397.67, which is carried forward to line 2, page 362.

Beginning on page 456 is another group of still larger gas mains, bringing gas from the gathering lines through these trunk gathering lines into the initial compressor stations. One of these trunk gathering lines extends from Liberal station down to Sneed station, a 22-inch line. On [fol. 538] page 456 there is shown a recapitulation with the values shown by States, in the amount of \$2,630,583.49.

Beginning on page 457 is detailed the trunk gathering lines in Texas, this being a 22-inch line starting at Sneed station and running eventually to Liberal station, across the panhandle of Oklahoma and into the State of Kansas.



On page 457 has been listed the materials; and at line 36 is shown the subtotal to include stores expense on pipe and fittings of \$844,159.59 for the portion of that line in Texas.

On page 458, lines 1 to 15, is shown the detail of the installation cost of that same Texas portion of that 22-inch line, with the subtotal at line 16 for installation, of \$278,110.25.

There follows a calculation of the freight on pipe and couplings; and at line 26 I have arrived at the total reproduction cost of the Texas portion of that 22-inch line, in the amount of \$1,348,066.85.

The installation costs, as shown on page 458, are arrived at from an analysis of the contract prices at which work has recently been performed for Panhandle Eastern Pipe Line Company. The pipe is based upon a schedule of pipe prices for such sizes which I believe to be the prices obtaining as of June 30, 1941. Pipe prices have recently been advancing. Panhandle Eastern Pipe Line Company [fol. 539] has been negotiating for the purchase of pipe for additional loop lines and for extensions to its system in southern Michigan and northern Indiana, and from consideration of the information derived in making those purchases I have fixed a schedule of pipe prices for pipe over 16 inches in diameter for main line use, which is as follows:

16-inch—lapweld, \$65; electric weld, \$67; seamless, \$68.

18-inch—lapweld, \$64.50; electric weld, \$66.50; seamless, \$67.50.

20-inch—lapweld, \$62; electric weld, \$64; seamless, \$65.

22-inch—lapweld, \$62; electric weld, \$64; seamless, \$65—

. . . . .

(Continuing) 24-inch—lapweld, \$62; electric weld, \$64; seamless, \$65.

26-inch—lapweld, \$62; electric weld, \$64; seamless, \$65.

28-inch—lapweld, \$62; electric weld, \$64; seamless, \$65.

All these prices are prices per ton, based upon Lorain freights without further discount for cash.

The prices which I have used on smaller pipe, as I have [fol. 540] previously pointed out, are based upon carload list with the applicable discounts, which do include 2 per cent discount for cash.

Q. Do you believe that the prices that you have just adopted are fair and reasonable prices under your assumptions?

A. I do; I believe they are the minimum prices at which pipe could have been purchased June 30, 1941.

Q. When you speak of Lorain, what do you refer to?

A. I mean that those prices will be so adjusted that whether the pipe be shipped out of Lorain or Milwaukee, that the net delivered prices will be these prices per ton plus freight from Lorain.

Q. That is a common practice in the industry, is it?

A. It was a common practice. It has been deviated from to some extent in the last five or six years; but that is evidently the basis on which pipe will now be purchased for Panhandle Eastern.

The actual tonnage rates may prove to be somewhat higher than I have given when the order is finally placed.

[fol. 541]. I have recited my schedule of pipe prices used throughout in this tabulation.

Well, at page 458 I have arrived at the total of the Texas portion of this 22-inch line.

Now, that same line continues across Oklahoma, and the Oklahoma portion of it is shown in subsequent pages, the total for Oklahoma being on page 460. Beginning on page 461, I have detailed a river crossing on that line, the total for that river crossing being on page 462.

I have then continued with the Kansas portion of that line, the Kansas portion being shown for its total on page 464; and an additional river crossing shown in total on page 466.

[fol. 542] Now, on page 467, in column A, I have given a description of the main units into which the main lines of Panhandle Eastern Pipe Line Company may be divided.

At the 2 is the designation "Kansas Line 100." This is the Kansas portion of the original main line.

The Kansas portion of the loop line is designated in line 7 as "Kansas Line 200", and that has been estimated by sections, the Liberal loop for example being the section between Liberal station and Greensburg station, the Greensburg loop following in order, being that loop between the Greensburg station and Haven station. In general, the loop is designated by the compressor station which precedes it.

On page 468 the recapitulation of the main lines is completed, showing a total, at line 14, of \$29,395,674.68; and [fol. 543] in subsequent pages the items shown in the recapitulation are detailed.

Beginning on page 469, I have detailed the Kansas main line No. 100, the original line. The materials are listed down to line 8 on page 470, after which is added the stores expense, amounting to 1 percent on the pipe and 4 percent on the other materials, to produce the subtotals of materials and stores at line 10.

Following this is the estimate of the costs of installation, these costs being based upon an analysis of contract prices for work recently done or bids on work now authorized to be done.

Q. In that same general area? A. Yes, sir.

Q. Now, on page 471, have you added an item for freight?

A. I have, because the items for pipe as shown on page 469 are for pipe f.o.b. mill; therefore, on page 471 is a calculation of the freight on this pipe, and at line 36 I arrive at the total installed cost of the Kansas portion of the original line, in the amount of \$7,821,020.61.

Q. Would it be fair to say, Mr. Biddison, that with respect to each of the other items that you have mentioned in connection with the main transmission line, that you have followed a similar process?

A. That is correct.

[fol. 544] I have estimated the river crossings, for example, the Arkansas river crossing, beginning on page 472, —I have estimated that upon the basis of contract prices for construction. These jobs were done in 1937, or earlier, and in general on these river crossings I have used the contract costs incurred in that 1936 and 1937 construction on river crossings, without any substantial modification.

I realize that the costs have materially increased for the labor in performance of that class of work, but time has not permitted to make the adjustment on account of the detail work that would be required to do that.

Q. And those items have been included in the cost?

A. Such items as I have for increased cost must come in my allowance for miscellaneous construction expenditures and omissions.

I think the explanation which I have made will cover the balance of the whole grouping of transmission mains.

[fol. 545] On page 774, I have shown, in summary, the costs of compressor station property. I have shown there the cost for each of the compressor stations owned and operated by Panhandle Eastern Pipe Line Company. In subsequent pages each of these stations is detailed.

In estimating the cost of these compressor stations, I have used the analysis of the contractor's charges to the Panhandle Eastern for a distribution of the contractor's direct costs. Certain of the equipment in these stations, practically all the work having been done by contract, was purchased by Panhandle Eastern Pipe Line Company, and furnished to the contractor under the terms of the construction contract. This includes such items as the main engines, the auxiliary engines and their connected generators, water pumps, water tank, air compressor, structural steel for the main building, and some other items.

I have then re-priced these major items of main engines, compressor stations, main buildings, water tanks, on the basis of the present-day costs for that class of material, as shown by recent purchases by Panhandle Eastern Pipe Line Company for construction work now in progress, and for the balance of the work on these compressor sta-

tions have used the distributed costs as reflected on the Panhandle Eastern records and as furnished by the contractors, and to the work performed by the contractor have added 20 percent to cover the contractor's overheads and [fol. 546] profits, this 20 percent being arrived at by an analysis of the residue of undistributed charges in this allocation made by the contractors upon completion of the installations.

Q. All right:

And the compressor station total is carried forward to line 15 of page 2, is it not?

A. It is, in the amount of \$9,792,271.60.

Q. Now, Mr. Biddison, turning to your next item, which is that of "Other Transmission System Equipment", as shown in total on line 16 of page 2, let me ask you whether that is discussed, commencing at page 837 and ending at page 926 of your Exhibit No. 39 for identification?

A. It is.

On page 837, the items of Liberal boarding house equipment; domestic water well, Louisburg; air and gas line to laboratory, Louisburg; domestic water pump, Liberal; lake barge, Louisburg; pressure alarm gauges; Sneed boarding house equipment; Hansford boarding house equipment; [fol. 547] gas scrubbers—

(Continuing)—have been taken from the books. These are miscellaneous items, not of great value, and I have taken the book statement for them.

The items of cathodic protection installation are mostly of very recent construction, and they have also been taken at the amounts shown by the books.

On cattle guards, I have a field inventory taken, and that item has been estimated in detail from that field inventory.

The same is true on fence gates on leases.



At line 13 is shown emergency pipe racks and equipment, in the amount of \$67,066.35.

These emergency pipe racks are located along the main lines at points where they will be accessible so material may be had for emergency repair work.

I call particular attention to them because a great deal of the value in this item consists of material, but this is not material which is included in the item of materials and supplies on hand used as an item in working capital, as testified to by Mr. Sperry.

The location of these pipe racks and the equipment on them is detailed on pages 842 to 926, inclusive, and is summarized on page 841.

[fol. 548] Q. Now, will you turn to the next item, which is "Gasoline Production System Property", a summary of which is shown at page 927, and state what you did in that connection?

A. Liberal gasoline plant was constructed partly in 1936 and partly in 1937. It is true that labor cost has advanced since that date, and it is also true that the costs of a great deal of the equipment in that plant are higher today than they were when the plant was built; but the figures which I have shown for Liberal gasoline plant, beginning at page 927 and continuing to 933, are an allocation to the accounts which I have used of costs determined from the books of Panhandle Eastern Pipe Line Company.

Under "General System Property", as shown on page 934, there is included general office equipment, general transportation equipment, general laboratory equipment, general communication equipment, and general tools and implements. With the exception of general communication equipment, which has been estimated in detail from an inventory completed about June 1, 1940, the items of general [fol. 549] property have been taken at the stated values shown on the books of Panhandle Eastern Pipe Line Company.

Q. And the total is \$727,565.12, is it?

A. That is correct.



Q. As carried forward on page 2?

A. That is correct.

Q. And was not the inventory with respect to that communication equipment completed in June of 1941 instead of 1940?

A. 1941 is the correct figure. If I said 1940, it was an error.

Q. Then, turning back to page 2 for a moment, you have your total of direct construction costs, shown on line 28 of that page, covering all the items you have been describing, is that true?

A. Yes, sir, at line 28 I show total direct construction costs of \$67,422,726.85.

Q. And the detail with respect to all of those items is [fol. 550] included on the pages of the exhibit from 3 to 955 inclusive, is it not? A. That is correct.

Q. Now, will you turn to page 956, which is headed "Intangible Fixed Capital", and state what that covers?

A. It covers the item of preliminary and organization expense, that cost which would be incurred in organizing the company to do business, getting its charters and permits and in reaching a decision as to whether to proceed with the project.

It involves the expenditure of money for geological investigations and engineering investigations and reports, as well as the salaries and expenses of the promoters of the enterprise during the preliminary stage and before financing is completed and construction work started.

Q. And you used three quarters of one per cent for that item; did you?

A. Yes, sir. That is my estimate of what it would cost to duplicate the services that have been performed in that respect.

Q. Now, will you turn to page 957, headed "Undistributed Construction Expenditures", and state what is covered by that item?

A. Under this group I have included administrative expense during the construction period, law expense during [fol. 551] the construction period, engineering and super-

vision of construction, taxes during construction, interest during construction, and miscellaneous construction expenditures and omissions. The total of these, as shown on page 957, is \$7,781,764.69.

I might add to that explanation that with respect to interest during construction, I have assumed a two-year construction period, substantially that the original line would be built in one construction period and the loops in the second construction period.

Q. Do you believe that to be a reasonable assumption, based on your experience?

A. I do. It would be a big construction period for each of the two periods.

Q. Now, will you turn to page 962, where you commence a statement of construction work in progress, and state what that covers?

A. I have listed what is recorded on the books as construction work in progress, beginning on page 962, which is a total, as shown on line 2, page 963, of \$383,556.82; but of that work in progress, as shown by the books, certain items were completed and in use and were therefore included by me in the property accounts which I have evaluated. Those items are listed on page 963, line 3 to line 26, inclusive, for a total, as shown by line 27, of \$233,887.20, so that there is work in progress not included by me in the direct plant accounts to the extent of that shown on line 28 of \$149,669.62.

Q. That is of June 30 of this year?

A. That is correct.

Q. Now, will you turn to page 964, which you have headed "Working Capital," and explain what you did there?

A. The amounts shown on this page are amounts as estimated by Mr. L. F. Sperry, treasurer of Panhandle Eastern Pipe Line Company, and as testified to by him in this proceeding.

Q. You have taken the figures which Mr. Sperry developed and testified to, have you not?

A. Yes, sir.

[fol. 554] Q. Now, will you turn to page 966 which you [fol. 555] have headed: "Cost of Business Development", and tell us what is included on that page?

A. Upon the completion of a natural gas line, business does not just walk down the street and attach itself. It takes effort to attach business. It takes time to attach business and costs money to attach business.

Q. Is there usually some lag of that sort?

A. It is almost inevitable. I know of one or two exceptions, where business was immediately attached to substantially the capacity of the system, but those are very rare.

In general, it takes five years or more to develop the business for which a line is constructed.

On this particular system, in order to develop business, and in line with what is being proposed on more recent construction, payments were made to some of the distribution utilities to aid them in their sales campaigns for industrial gas, for house heating gas, and contributions were made to bear part of the cost of their changing over their systems from manufactured gas to natural gas.

I have listed, on page 966, a statement, beginning at line 2 and ending in a total at line 30, of such payments made to utility companies. The purpose of the payment is generally shown.

Q. You mean payments actually made by Panhandle [fol. 556] Eastern Pipe Line Company?

A: Yes, sir.

Q. Where did you get those figures?

A. Those figures were furnished to me by an officer of Panhandle Eastern Pipe Line Company, at my request.

Q. And they total how much?

A. They total \$553,992.48.

Q. And is the statement which is shown on page 966 with respect to those particular payments self-explanatory? A. Yes, sir.

Now, we come to lines 31 and 32 of page 966. Will you explain the figure you have shown, Mr. Biddison, where you got it, and the reasons why you have included it?

[fol. 557-8] A. Roughly, the capacity of Panhandle Eastern's system was about 80,000,000 cubic feet per day up until early 1937, at which time it became about 125,000,000 cubic feet per day.

Panhandle Eastern would not have been justified in building a smaller line with the expectation of increasing from the 80,000,000 capacity to the 125,000,000 capacity by looping; it simply would not have been economical to have done so. You can make a rough comparison of it on the basis that a single 24-inch line, such as they did build, would cost about \$30,000 per mile, and an 18-inch, having, roughly, half the capacity of the 24-inch, would cost about \$20,000 a mile; so that the two 18-inch lines would have cost about \$40,000 a mile compared to \$30,000 per mile for the 24-inch line. The carrying costs on the unused capacity for the larger system would be less than the additional capital and its carrying costs for laying two of the smaller lines. It is almost inherent in the natural gas business that there shall be this lag in the development of the business and for a period of five or more years that you shall have some unused capacity in your system.

Q. And with costs attributable thereto?

A. Yes. If half your system is unused capacity, then half of the fixed charges thereon are attributable to unused capacity. I have used here as carrying costs on that [fol. 559] portion of the plant depending development of business, an amount of \$5,500,000, predicated upon a determination of the costs of carrying such idle plants made by Mr. Morton in testimony in this hearing, in which he measured that cost by 5 different methods.

Q. You have taken no one of his methods, have you, but have considered them as a whole?

A. That is correct. I have not taken any particular one, nor have I taken the average of all, but having considered them all I have taken \$5,500,000 as a measure of that cost of carrying the unused portion of the plant while the business was being developed to such an amount as was contemplated to load the original line.

Q. Now, Mr. Biddison, have you anything further you wish to state about this last item you have been mentioning?

A. Well, I should like to point out definitely that these costs, which are payments made and took money, are not allowed for in any item of my direct construction costs; nor are they allowed for in my item of intangible fixed capital; nor are they allowed for in my item of undistributed construction expenditures; nor are they allowed for in construction work in progress; nor are they allowed for in working capital; nor are they allowed for in the value of gas purchase contracts. They are not allowed for in any way, shape or form, in whole or in part; in any other place in my valuation except where shown as the cost of business development.

Q. And they represent real costs and actual money expended on the history of this plant rather than mere past losses?

A. That is correct, and they represent value because they are costs which would be incurred in the reproduction of this property, and they are costs which would be escaped by a purchaser who purchased the property with this business which has been attached by the expenditure of that money.

Q. Now, Mr. Biddison, will you turn back to page 2 and state whether this last item of cost to business development has been included in your summary contained on that page?

A. It has been, at line 35, in the amount of \$6,053,992.48.

Q. Now, Mr. Biddison, you have shown a total on page 2 of \$85,262,766.09. Let me ask you whether this figure, in your opinion, is a fair and reasonable estimate, based upon your experience in this business, of the cost which would be entailed to reproduce the Panhandle Eastern Pipe Line Company's system as of June 30, 1941?

A. It does, with one exception, to which I called attention to, the modification which I propose to make in the value of gas purchase contracts.

[fol. 562] Trial Examiner: The study of reproduction costs by Mr. Biddison, identified as Exhibit 39, is now of-

ferred in evidence; and the ruling as to its admission will be reserved until the completion of cross-examination.

[fol. 581] Trial Examiner: The hearing will be in order.

Are there any additional or other appearances today?

Mr. Gorman: I should like to add for the Commission's counsel the appearance of Mr. Harry S. Littman.

[fol. 585] P. McDONALD BIDDISON having been previously sworn, resumed the stand and testified further as follows:

Further Direct Examination.

By Mr. Wheat:

Q. Mr. Biddison, since the date of the last hearing, have you prepared certain correction sheets relating to data which you have shown in Exhibit No. 39 for identification?

A. Yes, I have.

Q. Let me ask you whether the group of sheets headed at the outset on the first page "Correction Sheets for Exhibit No. 39" is the group of corrections to which I have just referred?

A. Yes, sir, it is.

Q. And was this group of corrections prepared by you or under your direction. A. Yes, sir.

Mr. Wheat: Mr. Examiner, we have copies here and I think it would be advantageous if this group of corrected sheets rather than being inserted in Exhibit 39 as corrections might be marked Exhibit 39-A for identification, if that meets with your approval.

Trial Examiner: That may be done.

By Mr. Wheat:



Q. Now, I wish you would state where you think we should start in your explanation of these corrections?

A. When I testified at a previous session of this hearing with respect to Exhibit No. 39, I stated that I would recompute the value of gas purchase contracts shown on [fol. 587] page 965 of Exhibit 39, using in that computation a higher rate of interest at which to discount the differences between gas cost and gas values. I have done that on page 965 of corrected Exhibit 39-A.

The differences are in column "F" of the tabulation on the lower half of the page whereby the total value, as shown on page 965 of Exhibit 39, is reduced from \$1,779,942 which was arrived at by using a 4 percent interest rate, to a new figure shown on page 965 of Exhibit 39-A of \$1,585,914. This latter figure is arrived at by using a discount rate of 7 percent.

The figure of \$1,585,914, which I have just explained, is carried forward to page 2 of Exhibit 39-A at line 34.

[fol. 588] Q. Now, will you proceed with respect to your compressor station data?

A. Upon examination of Exhibit No. 39 I found that in connection with Tuscola compressor station on page 831 that there had been added into the total from the working papers an item of \$23,440 which should have been crossed out on the working papers. Therefore, I have prepared in Exhibit 39-A a corrected page, No. 831, which correction for that error produces a total for Tuscola station of \$682,218.43, whereas on page 831 of Exhibit 39, the total was [fol. 589] shown as \$710,346.43.

Having made that correction for Tuscola station, the corrected figure from page 831 of the Exhibit 39-A is carried forward into the summary of compressor stations on page 774.

Q. And that changes the sum total of line 19, does it not?

A. Yes, sir, that changes the total for sheet 774, which in Exhibit 39 was \$9,792,271.60 to the figure of \$9,764,143.60. That change is reflected in Exhibit 39-A on page 2 at line 15.

Q. That change also makes a change, does it not, on page 2 of the total of transmission system property and of the grand total shown at the bottom of that page, line 36?

A. Yes, it affects those items, but the total changes on page 2 of Exhibit No. 39 are not brought about by the compressor station item carried forward from page 774.

Q. In other words, on page 2 there are corrections other than that in line 15?

A. That is correct.

Q. You have already testified to one in line 34, have you not?

[fol. 590] A. Yes, sir.

Q. Will you now proceed with the other corrections which you have in mind?

A. On pages 682 and 683 of Exhibit No. 39, there is included some pipe lines from the local-area, that being a gas field near Kansas City, which were set up by a shortcut method and then the method abandoned. The sheets were typed and the totals carried into the valuation.

Pages 682 and 683 should be deleted as the pipelines shown thereon are set up in detail in subsequent pages.

Now, the amount of money affected by this is that shown on page 683 of Exhibit 39 at line 11, \$1,065,095.26. To correct for that error, there must be correction made on page 669 of Exhibit 39 and I have included in Exhibit 39-A a corrected page 669 in which in this recapitulation the item of \$1,065,095.26 is taken out. The new total for local area lines, as shown on corrected page 669 of 39-A is \$1,877,681.35 as compared to an original figure on page 669 of Exhibit 39, line 17, of \$2,942,776.61.

The new total on corrected page 669 of Exhibit 39-A [fol. 591] is carried forward to corrected page 351 of Ex-

hibit 39-A at line 31. The correction on page 351 then affects the total for mains which in Exhibit No. 39, page 351, line 32, was \$43,025,965.41. The corrected total as shown by page 351 of Exhibit 39-A is \$41,960,870.15. That total from line 32 is carried forward to page 49 of Exhibit 39-A at line 6.

This correction on page 49 of 39-A, therefore, changes the total for transmission system property at line 90, page 9 of 39-A.

In Exhibit 39 that total was, as shown on line 9, page 49, \$55,260,406.88. The new total is \$54,167,183.62.

Q. And that is carried over, also, on to page 2, is it not?

A. Yes, sir, that is carried forward to page 2 of Exhibit 39-A at line 17.

Q. That affects the total shown on line 17 of page 2, does it not?

A. It does. It produces at line 17 of page 2 the figure of \$54,167,183.62 as compared to the figure on line 17, page 2 of Exhibit 39 of \$55,260,406.88.

[fol. 592] On page 38 of Exhibit 39, line 12, there is an error. The figure shown is \$91. The figure should have been \$991 and I have made that correction at line 12, page 38 of Exhibit 39-A. That correction does not change the totals at line 14 of page 38, Exhibit No. 39.

On page 956 of Exhibit No. 39 I computed preliminary and organization expense at three-quarters of 1 percent upon \$67,422,726.85 of direct construction costs.

I arrived at a figure of \$505,670.45.

Q. Now, you have changed that figure, have you, by applying the three-quarters of 1 percent to your new direct construction costs?

A. That is correct.

[fol. 593] Q. And is that the figure which appears on corrected sheet 956, to-wit, \$497,471.27, the corrected figure which has resulted from that computation?

A. It is. The base upon which three-quarters of 1 percent is computed comes from line 28, page 2 of Exhibit No.

39-A and is \$66,329,503.59 and the amount estimated for preliminary and organization expense shown on line 3, page 956 of Exhibit 39-A is carried forward to line 29, intangible fixed capital, page 2 of Exhibit 39-A.

On page 958 of Exhibit 39-A I have recomputed the items of administrative expense, law expense, engineering and supervision and taxes during construction. The rates at which these are computed are the same as those used in the computation in Exhibit No. 39.

However, the base figures to which the ratios are applied in Exhibit No. 39-A are those resulting from the corrections which I have made in the estimates of direct construction cost and they appear in column "D" on page 958 of Exhibit 39-A and may be compared with the similar items in Exhibit No. 39 or from the summary sheets of the individual classifications of property.

[fol:594] The amounts computed for these elements of the undistributed construction expenditure, namely, administrative expense, law expense, engineering and supervision and taxes during construction are carried forward from page 958 to page 957 of that same exhibit at lines 1, 2, 3, and 4.

In a similar manner I have made correction on pages 959 and 960 for the item of interest during construction, using in this computation for amounts in column "C" the corrected amounts of direct construction cost which I have today explained, and I arrive on page 960 at line 11 at the figure of \$1,836,547.54 which has been, in turn, carried forward to page 957, line 5.

Similarly with the item of miscellaneous construction expenditures and omissions, I have recalculated that item on page 961 of Exhibit 39-A and have arrived on line 13 at the corrected figure of \$1,118,287.73, which has been carried forward to line 6, page 957 of Exhibit 39-A.

On this last-named page the corrected amount for undistributed construction expenditures in total as shown on line 7 is \$7,647,897.58. This figure compares with a previous figure of \$7,781,764.69.

The corrected figure has been carried forward and used on page 2 of Exhibit No. 39-A at line 30.

Page 2 is a summary of the estimate and with the corrections which I have outlined I arrive at a total reproduction cost new of plant property and business at line 36 of \$83,833,448.54 which compares with the previous total as shown on page 2, line 36 of Exhibit 39 of \$85,262,766.09.

Q. Have you carried that forward, also, to your original letter of transmittal?

A. Yes, sir, which is page 1 in Exhibit 39-A.

Q. In other words, the total appearing in the last paragraph of your letter on page 1 is the corrected total which you have read from your summary sheet, page 2, headed "Reproduction Cost New" is that correct?

A. That is correct.

. . . . .

Trial Examiner: Exhibit 39-A is now offered in evidence. The ruling will be deferred until after cross-examination.

By Mr. Wheat:

Q. Now, Mr. Biddison, is there anything further you would like to say in explanation of any of the items contained in Exhibit 39-A?

[fol. 596] A. I would like to explain a price feature in connection with compressor stations. In estimating the reproduction cost on compressor stations in Exhibit No. 39, I used the purchase price of the last main units which had been purchased by Panhandle Eastern Pipe Line Company.

At the time of compilation of Exhibit 39 Panhandle Eastern Pipe Line Company was negotiating for the purchase of additional compressor units and have since that date placed a firm order with the Cooper-Bessemer Corporation.

On March 19, 1941 Panhandle Eastern Pipe Line Company purchased from Worthington Pump & Machinery Corporation one 1300-horsepower unit at a price of \$54,384.80.

. . . . .

The Witness: The unit to which I refer is of the type shown on page 775, for example, of Exhibit 39, lines 2 to

8, inclusive, and also of the type, for example, shown on page 799, lines 2 to 8, inclusive.

On September 25 the Cooper-Bessemer Corporation quoted for engines of this style \$63,410 each. This is an increase in price on those engines of about \$6.75 per horse- [fol. 597] power, 1300 horsepower units.

. . . . .

On this system there are 42 such units of 1300 horsepower each, amounting to 54,600 horsepower. There is also on the system 23 units of 1000 horsepower each, amounting to 23,000 horsepower. These 1000 horsepower units are generally of the same type, but simply a little smaller in size, so there would be affected by such a price increase about 77,600 horsepower at \$6.75 per horsepower or \$523,800.

Q. Do you understand that this price quoted by the Cooper-Bessemer Company is a firm price for such units?

A. It is a firm price at which two units will be bought.

Q. By this company?

A. Yes, sir, and it is the price at which other units have been sold since June 1 of this year.

Q. By the Cooper-Bessemer Company? A. Yes, sir.

. . . . .

[fol. 598] Q. Have you anything further to say now with respect to these major compressor units?

A. Yes. In this system there are two 600 horsepower vertical compressor units and six 650 horsepower vertical units. That is 5,100 horsepower. Six of these units were bought in 1940 at \$26,897 each. There has been purchased on a proposal dated October 2, 1941 two additional 650 horsepower units at a price of \$32,956 each.

Q. Those were purchased by this company, were they?

A. Yes, sir. This is an increase of about \$9.34 per horsepower which applied to a 5,100 horsepower would amount to \$48,634.

. . . . .

In September 1941 the Cooper-Bessemer Corporation quoted \$13,932 f. o. b. factory for 200 horsepower vertical [fol. 599] gas engine, directly connected to a 125 k. w. gen-



erator. That may be compared to a purchase price in January of '37 of \$10,610 for such units.

Now, I have not had an opportunity to run through the effect of this last purchase order upon the auxiliary engines, but inspection indicates that there would be some substantial additions by giving effect in all the compressor stations to this last price for the auxiliary units.

Q. Well, how much per horsepower is this price now over 1937?

A. Well, it is \$16.61 a horsepower increase, but I have not had an opportunity to run the matter through for complete comparison with the prices used in the valuation on the auxiliary units.

Q. Well, is that because you have not had time owing to the pressure of other work in connection with this case?

A. That is right.

Q. Now, Mr. Biddison, have you anything further that you would like to say with respect to these particular materials which you have just been discussing?

A. Only that while I have called attention to these increases in present day costs of main compressor units, I have not given them any effect in the corrections which I have made in Exhibit 39-A.

I want to call attention, further, to the fact that they, themselves, point to what is pretty well known, that we are in an era of advancing prices and prices on all equipment seem to be headed toward increments such as I have pointed out with regard to these compressor units or more.

In connection with the contract with the Cooper-Bessemer Corporation for the two 1300 horsepower units there is a provision in that contract by which the price may be increased over the quoted price, any such increases being based upon specified indices of labor rates and material rates.

There is specific provision in the contract for increasing the price. Nobody knows what the price might be when the engines are actually delivered.

Q. Well there is no provision for decreasing the price, is there? A. No, there is none.

Q. The provision only goes toward increases, is that correct?

[fol. 601] A. That is correct.

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[fol. 622] O. W. MORRIS, having been previously sworn, resumed the stand and testified further as follows:

[fol. 623] Q. In carrying on your duties as an employee of the Panhandle Eastern Pipe Line Company, have you had occasion from time to time to estimate the market requirements in m.c.f. of that company?

A. I have.

Q. Over what period of time have you made those estimates?

[fol. 624] A. Ten years.

Q. Is that done as a matter of curiosity or is there a particular necessity for it?

A. That is one of my annual assignments.

Q. Why is it necessary for those estimates to be made?

A. The company requires those estimates in order that they can have some idea of the gross revenue they will receive during the ensuing year.

Q. They need to know both the revenue they will receive and the amount of gas they will probably sell?

A. Exactly.

Q. In order to have their proper facilities available and make all necessary arrangements.

A. Yes, sir.

Q. In making these estimates you estimate the total consumption, I assume, that is, the total market in m.c.f. Do you also make any estimates as to the maximum day requirements?

A. We also estimate maximum day requirements.

Q. Why is it necessary to estimate the maximum day requirements?

A. Those estimates are necessary in order that the company may plan its construction program.

Q. Have you recently made an estimate of the requirements of the company over the period of 1941 to 1946? A. I have.

Q. Are the results of that study incorporated in Exhibit 40 which has been marked for identification?

A. They are.

Q. I notice that in the exhibit you apparently divide your estimates into two general divisions, west of Dana and east of Dana. Will you point out on Exhibit 15, which is on the wall, the point where that division is made?

A. Dana is located very near, almost exactly upon the Indiana-Illinois state line at the point I indicate here.

Q. Does Panhandle Eastern, itself, transport any gas beyond Dana in an easterly direction?

A. It does not.

Q. What does it do with the gas at Dana?

A. It sells the gas at Dana to the Michigan Gas Transmission Corporation for resale by that corporation or it delivers to Michigan Gas Transmission Corporation gas for delivery by that corporation on account of Panhandle Eastern.

Q. All points west of Dana are those from which Panhandle Eastern delivers its own gas?

A. That is correct.

Q. Without the use of some intermediate transporting company?

[fol. 626] A. That is correct.

Q. Is that the reason why you use Dana as the dividing point?

A. It is a natural division point in all of our statistics and all of our work.

Q. Yes. I notice that you have divided the areas East of Dana into several divisions. You have a Michigan division and an Indiana and Ohio division and a Kentucky Natural Gas Company. The Michigan gas is further subdivided into "Detroit," "Other Industrial" and "Domestic, Commercial and Other."

By the "Detroit" gas you refer, I assume, only to the gas which is delivered at Detroit?

A. That is correct.

Q. By the use of the transportation facilities of the transmission company? A. Correct.

Q. What do you refer to as "Other Industrial" shown on lines 5 and 6 of Exhibit 40?

A. Why, that is industrial sales that we expect to make. You will see that there is none being made in 1941.

Q. That was what I was going to ask next. There is none for '41. You expect to pick that up in '42. Is that correct? A. That is correct.

[fol. 627] Q. And where do you expect those sales to be made?

A. As it states here, in Michigan.

Q. Then line 8—

Mr. Lee: Is the Detroit area, possibly, in what we refer to as the Consumers' Power Area?

By Mr. Culton:

Q. Can you name some of the cities or towns that you have on that?

A. The first that comes to my mind is Pontiac and Flint. There are numerous others.

Q. Does Panhandle Eastern have any industrial sales of its own in Detroit direct?

A. Panhandle makes no direct sales.

Mr. Lee: Well all of this, lines 5 and 6 and 8 and 9, are sales that you contemplate making under the Consumers Power Company contract, isn't it?

The Witness: Not exclusively. We have just used a general term there "other" meaning sales other than those to Detroit in the State of Michigan.

By Mr. Culton:

Q. You do have on line 8 some sales being made during 1941. What area did you have in mind for those sales?

A. Well, that comes under the general heading of [fol. 628] "Michigan Other" and is the domestic and commercial sales which are now being made in the State of Michigan other than to Detroit. Specifically I refer to Monroe.

Q. There are some parts in Michigan which the company is already furnishing gas for in addition to Detroit?

A. That is correct.

Q. The Indiana and Ohio load seems to be divided into two divisions, the "Industrial" and "Other," the "Industrial" being 10,000,000 m. c. f.

A. Correct.

Q. What areas are those?

A. That is, as it states, Indiana and Ohio principally, almost entirely located in the Muncie area.

Q. Then, you have "Other" listed there under line 13. What area do you refer to there?

A. That is domestic and commercial sales and unaccounted for and company used gas in the states of Indiana and Ohio.

Q. In other words, the company uses some gas in its operations?

A. The gas which Michigan Gas Transmission Corporation uses is to Panhandle Eastern a sale.

Q. I see, so that it is the company use gas of the Transmission Company that you refer to there?

A. That is right.

[fol. 629] Q. The gas is sold to the Transmission Company and by it is used in transporting the gas which is actually sold? A. Yes.

Q. Line 15, you have an allowance for Kentucky Natural Gas Company. What area is that?

A. Kentucky Natural Gas Company has a gas pipeline coming up from the South, intersecting the Michigan Gas Transmission Corporation's line east of Dana and that is the sale to which the title "Kentucky Natural Gas" refers.

Q. I notice that in your estimates for 1942 and 1943 you are assuming a probability of slightly less gas being disposed of through that method than during 1941 or subsequent years. What is the reason for that circumstance?

Trial Examiner: You mean the reference, Mr. Culton, on line 15?

Mr. Culton: Yes, sir, 1942 has 1,720,000; 1943, 1,690,000.

A. Well, that is based upon our past performance with this sale, also due to the fact that recently a new contract [fol. 630] has been entered into with Kentucky Natural and the requirements of that contract are for less gas during '42 and '41 and with respect to '43 and '42, the esti-

mator felt that '43 would be less than '42, because during the year '42 Kentucky Natural would be making up a shortage in their takes which now exists. By the year '43, during which the shortages would have been made up, the sale for '43 would be that which is called for by the new contract.

Q. In the area west of Dana, you have two general divisions, the "Industrial" and the "Domestic and Commercial." Are there few or many towns and communities served in that area?

A. There are many, I would say.

Q. In making this investigation, did you take into consideration the past history in those various areas?

A. The past history is our chief guide in preparing all these estimates.

Q. I notice that as to each of these different types and areas of consumption you show maximum day's obligations. That, I take it, is intended to present your view of the maximum requirements any one day in the year in any of those different areas.

A. The maximum day shown under each classification is the contribution of the respective classes to the system total maximum day rather than the individual maximum [fol. 631] day of each class.

Q. Is it true that the maximum day for any particular area would necessarily be the maximum day for the entire line? What I mean to say, stating it differently, would the maximum day for the entire line always be the maximum day for an individual area?

A. We have the proposition of diversity there. The thing you have in mind, no doubt, is whether or not the total maximum day to be taken care of on our line is equal to the sum of all individual maxima of all the different points of delivery.

And the answer is no.

Q. How do you arrive at the maximum day for the line then?

A. We use past performance and experience, we consult the individual maximum days of the different points of delivery, we study previous years' maximum days and then we arrive at what, in our best judgment, is the contribution of each individual delivery to the maximum day



and then we add all of those and that gives us the maximum day for which we will have to construct capacity.

[fol. 632] Q. I ask you to examine Exhibit 41. Was that graph prepared by you or under your direction? A. It was.

Q. Will you explain it to the Examiner and for the purposes of the record?

A. On Exhibit 41 I have plotted cost of gas plant against total annual sales of the Panhandle Eastern Pipe Line Company and subsidiary companies' system. The scale applying to gas plant reads in millions of dollars and the scale applying to annual sale reads in billions of cubic feet.

Q. What did you use as the gas plant, for the number of millions of dollars?

A. We used what is called for in our classification of accounts, "Gas Plant Classified" at the End of Each Calendar Year.

Q. All right, proceed.

—Mr. Gorman: That is taken from the books, of course.

[fol. 633] The Witness: It is.

The bottom curve or graph is "Annual Sales" and is self-explanatory, I believe.

By Mr. Culton:

Q. The graph, in short, shows an increasing amount of sales annually and, during the same period of time, increases in the gas plant account. A. It does.

Q. I note two lines, one marked 1940 and one marked 1941. Those two periods are marked "Est." What do you mean by that?

A. It means that I have estimated those values.

Q. And that purports to show the year 1941 which is not yet completed? A. It does.

Q. Were any portions of the figures used for that period actual figures?

A. We had six months actual to guide us in making the estimate.

Mr. Gorman: Do I understand from your statement that only the last six months or the last year of which you

[fol. 634] have been speaking was estimated and the first six months of 1941 are actual figures?

The Witness: I believe you mean, does the point half way over from 40 to 41 represent the actual?

Mr. Gorman: That is right.

The Witness: It does not.

\* \* \* \* \*

The Witness: (Interposing) The whole year is estimated and I had, in preparing the estimate, the advantage of six months actual.

\* \* \* \* \*

The Witness: I might say that I feel quite certain, although I haven't tried to spot it on here since I drew it, that that midpoint is just about the six months actual.

Mr. Gorman: So the answer is really that despite the fact that you had the first six months' figures available you still estimated for that period.

The Witness: That is true.

Mr. Goodman: May I ask a question here? Is there any significance in the slope of the curve? In other words, does that indicate that the sales increased in the ten [fol. 635] periods marked out there at that rate or is it to be read as from point to point?

The Witness: You read this from point to point, that is to say, if you will look at it there, 1933 the figure is 11 plus. In 1934, the annual sales were 13 plus.

Mr. Goodman: I see. So that really to be really accurate the line is not significant, it is just the points on the line that are significant.

The Witness: Yes.

By Mr. Culton:

Q. That isn't divided into 12 units to show 12 months, it is merely the paper it is prepared on? A. Correct.

Q. Returning back to Exhibit 40, do the estimates shown on that exhibit evidence your best judgment as to the requirements of Panhandle Eastern during the years

shown on that exhibit for those different areas and for the line as a whole and the maximum day requirement during those same periods? A. It does.

Trial Examiner: The proposed exhibits, identified as 40 and 41, have now been offered and the ruling on admission will be deferred.

[fol. 639] Mr. Gorman: Did I understand your testimony to be that the construction program for the following year of Panhandle Eastern is based upon your estimate of volumetric demand for that period?

The Witness: The construction programs of past years have been based upon my estimate of maximum day and sales similar to this estimate I have prepared here. As to the future, and that was your question, I can't answer it.

[fol. 647] Mr. Lee: Is this maximum day that you have set forth in your exhibit what you anticipate to be the maximum day under the Detroit contract, or the maximum [fol. 648] day for the entire system west of Dana?

The Witness: I don't understand your question.

Mr. Lee: In Exhibit No. 40, you have 1941, M. C. F., 24,000,000, line C.

Then, you have maximum day, 102,604. Now, how do you arrive at that maximum day? Is that a maximum day for the entire system, the average west of Dana, or is it the maximum day for the Detroit area which will affect the contract for the Detroit area?

The Witness: I previously testified, Mr. Lee, that the individual max days shown here are the contribution of the individual loads to the system max day upon the system's max day.

Mr. Lee: How do you apportion to the Detroit area alone?

The Witness: It happens that the 102,604 is an actual figure. That was the contribution of Detroit to the total of 240,394 on the system's maximum day.

Mr. Lee: Has that figure any reference to the maximum day referred to in the Detroit contract which fixes the demand charge?

The Witness: It has none.

. . . . .

Mr. Lee: Your estimates for the next five years so far as the Detroit area is concerned show a continuing increase [fol. 649] in the volume of gas you expect to sell there; isn't that right?

The Witness: Yes, sir.

Mr. Lee: Did you have any correspondence with the Michigan Consolidated Gas Company and the distribution company, that you used in making up that estimate?

The Witness: I do not.

Mr. Lee: Did anybody for the Panhandle have it and give it to you?

The Witness: They did not.

Mr. Lee: Have you ever had any factor in making up your estimates for Detroit area, did you ever have any factor in your mind for the diminution in the use of gas for automobile companies there; by automobile companies there by reason of any defense program that might reduce the amount of gas sold—had that ever occurred to you?

The Witness: That never occurred to me.

Mr. Lee: And, of course, you used nothing like that in this estimate?

The Witness: I didn't use that. I wouldn't say anything like that, but I didn't use that in this estimate.

. . . . .

[fol. 652] Mr. Chamberlain: Mr. Morton, in order that the record may be perfectly clear, will you let us know whether the maximum day that you have indicated on Exhibit 40 is the day of the highest send-out for any day of the year, or does it refer to the highest send-out during the four winter months?

. . . . .

Mr. Chamberlain: I am referring to the term "Maximum Day."

. . . . .

Mr. Chamberlain: In other words, what is your definition of "maximum day" as respects this exhibit?

The Witness: "Maximum day" as shown on line 27 is the total maximum day which I estimate will be experienced on The Panhandle Eastern Pipeline System on the day of the highest demand for the 12 months' period.

Mr. Chamberlain: Yes, and is your estimate not made with respect of the higher demand of the four winter months?

The Witness: It happens that our highest demand does occur during the four months' period, and this estimate contemplates that the highest maximum demand will occur during the winter time.

Mr. Chamberlain: Do you remember the date of the maximum demand in the current year?

The Witness: It was February 19.

Mr. Chamberlain: And your computation with respect to the Detroit maximum day was with reference to the maximum day upon the system rather than the maximum day at Detroit?

The Witness: Yes, the 102,604 shown here is Detroit's contribution to the Panhandle Eastern maximum day; not Detroit's maximum day.

. . . . .

C. H. HIXON called as a witness for the Panhandle [fol. 654] Eastern Pipeline Company, having been first duly sworn, was examined and testified as follows:

. . . . .

Q. You live in Kansas City? A. That is right.

Q. Have you caused to be prepared written testimony in this case? A. Yes, sir.

Q. Also, some schedules presented in connection with it? A. That is right.

Q. And three separate maps? A. Two development maps and one area map.

Mr. Culton: Mr. Examiner, at this time, may the record show that we are requesting that a document entitled "~~Written Testimony of Witness C. H. Hinton~~" be marked for identification as Exhibit No. 42.

That a document entitled "Schedules Presented in Connection with the testimony of C. H. Hinton" be marked Exhibit 43 for identification.

That a map entitled "Development Map Basic Load" [fol. 655] be marked Exhibit 44 for identification.

That a map entitled "Development Map Anticipated Increased Loads" be marked Exhibit 45 for identification.

That a map entitled "Group Area Map" be marked Exhibit No. 46 for identification.

Trial Examiner: These exhibits may be so marked for identification.

Q. Are the facts set out in your written testimony true and correct to your best judgment? A. In my best judgment, yes, sir.

Q. Are the exhibits and maps presented in connection with your testimony correctly prepared in your judgment? A. Yes, sir.

[fol. 671] Trial Examiner: Do you wish us to understand, Mr. Hinton, the substance of your written testimony is under oath, and in effect is such as you would give in response to certain questions and answers?

The Witness: Yes, sir.

Trial Examiner: So far as statements of facts are made, you believe the statements are true, and insofar as opinion is concerned, they represent your best judgment?

The Witness: Certainly.



By Mr. Culton:

Q. Mr. Hinton, without going into the general testimony given in the earlier portion of your written statement, but addressing myself to the testimony commencing on page 21 of Exhibit 42, I desire to ask you with respect to a number of those items to give the reason for them and point out on the map just exactly where the work is to be done.

I notice that you make no distinction between the basic [fol. 672] load and the anticipated load for the year 1941 and the anticipated loads for that year is on page 26.

That is just because the year is just about over and you have a pretty good idea as to what will be done; is that correct?

A. That is correct. The change in the load would not change the expenditure.

Q. Yes. So that counsel may understand you have prepared two maps which show the amount of work which would be done, first under the basic load, and second under the anticipated load.

[fol. 673] Trial Examiner: In order that we may have no confusion, let us try and refer to the basic load map as the map marked for identification as Exhibit 44, and the other as Exhibit 45.

Q. Did you use the same color scheme in the preparation of those two maps?

A. Yes, sir.

Q. Would you please explain to the Examiner, and for the purpose of the record, just exactly what your color scheme used means and if you need to go to one of the maps to point out, you may do so.

A. (Going to the map) On the schedule there, it shows that there is to be some work done through 1941. Now, all that can be shown on a map by symbols is shown in a grey color.

That takes in the installation of two well compressors.

(Interposing) The grey shows the work to be done in 1941.

[fol. 674] The brown, 1942.

The green, 1943.

The orange color, 1944.

The purple, 1945.

The blue, 1946.

Trial Examiner: Is that true of both maps, Exhibit 44 and 45 as well?

The Witness: Yes.

Mr. Littman: May I inquire are those the legends marked on the maps themselves?

The Witness: Yes, sir, down in the right-hand corner.

Mr. Culton: The lower right-hand corner.

Explain what the red is on those maps, and the yellow.

A. The leases shown in the dark red are leases that were drilled previous to June, 1941, and the yellow acreage is acreage which is under gas purchase contract.

The lighter pink acreage is acreage which is under lease to the Panhandle Eastern and which will be drilled at a later date, that is, after the five-year period which this map covers.

Q. You do not contemplate drilling those particular leases during the five-year period at this time?

A. No, sir.

Q. Under either the basic load or the anticipated load?  
[fol. 675] A. Only those that are shown by the color that is in the lower right hand corner of each map.

. . . . .

[fol. 676] Q. The first item on 1941 is construction installing a specially designed liquid separator between Sneed and Hansford Station in Texas, costing \$26,300. Has any work been done on that?

A. It is under construction and I believe that it is pretty well dug out now. I think they have had just a

little delay on getting the separator tanks, and I don't know just exactly what stage that is in right now, but I know that it is under way.

Q. In the process, will you point out about where that will be on the map?

A. I don't show on the map that because I didn't have any symbol, but it would be right in this area right in here (pointing).

[fol. 677] Q. What is the purpose of that separator?

A. That is to try to get away from the icing conditions in that line that has prevailed over the past several winter's operations.

Q. Explain what you mean by the icing conditions.

A. Well, when the gas leaves the compressor station at Sneed, shown on the map there, it is heated and as it goes on down the line, that gas cools and hydrates are formed in that line and have caused us considerable trouble, and the flow efficiency has gone down so low in the past year's operation that we are putting this on in addition to further work on the dehydration station, the plant there, to try to get better flow efficiency in the line.

It is really a super drip, you might call it. In other words, it is designed to try to take the moisture from the pipe line.

Q. In other words, it is what might be termed an advancement in the art of operating pipe lines?

A. That is right.

Q. You are attempting to get away from certain conditions that now work against economic operation.

A. Yes, sir.

Q. The next item which you have is two individual well [fol. 678] compressors in the Burnett field, Burnett well No. 108, and Bivins well No. 91.

Q. What is the necessity for those two field compressor stations, or well compressor stations?

A. That is due to the formation pressure. In those wells, the Burnett well pressure is down to a point where it is impossible for it to produce any gas into our pipe

lines against our required operating pressure, and the Bivins well is not quite as bad.

There have been a few days this year that we could get our pressures down low enough to take a slight amount of gas from that well, but we cannot depend upon it for any peak load delivery, and that is the reason we are installing that compressor there.

. . . . .

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[fol. 684] Q. Mr. Hinton, when we adjourned yesterday, we were discussing two individual well compressors for two wells on the Burnett and Bivins leases in the Panhandle field. You stated that it was necessary to install these well compressors at these wells in order to boost the pressure up to where they would enter the pipe line at the present working pressure, I believe.

A. That is right.

Q. What stage is that construction in at this time on those two wells?

A. The compressors are in the warehouse at Fitch, Texas, and we are waiting on some of the smaller parts to start the actual installation of the two units.

Q. All of the equipment is either now on hand, or on order?

A. Yes. And, it is all there except just a few minor parts.

Q. Are any of the gas purchase contract holders in [fol. 685] that field from which Panhandle Eastern is purchasing gas at this time using compression to enable their production to enter the pipeline?

A. Yes, the Huber Petroleum Company has 19 wells which they produce through one main station.

There is one of those 19 wells, the Chapman well, which will produce during the lower periods of working pressure on the line, and it doesn't go through the compressor all the time, but the other 18 are on all the time.

They have another group of three wells which are on a compressor all the time; in addition to the Huber Company, the King Oil Company has—they have two wells

which are produced by means of compressors to get the gas into our lines.

Q. What is your judgment as to the necessity of further use of field compressor stations or well compressor stations in the latter years of that field?

A. Why, I think there will be many field compressors in the next few years.

Q. The next item which you have for 1941 on both the anticipated load and the normal load or the present load about which you have testified, is to construct a warehouse at Zofness Camp.

Just what is Zofness Camp? Can you point it out on exhibit No. 45?

[fol. 686] (Going to the map) That is in section 55 and that camp is located right up here (indicating), as I remember. It is northeast of the northeast of the northwest.

Q. Section 55; what block is that?

A. 6-T, T&NO.

Q. When was the Zofness Camp constructed?

A. 1930, the first building was done there, and in 1931 we wanted to fence it and I surveyed that camp at that time. It was in August of 1931 that we definitely tied the camp location in.

Q. Why is there a necessity for a warehouse at Zofness Camp at this time?

A. Well, in the years before this, why, we did our warehousing out of Fitch, Texas, but about three or four years ago—maybe a little longer than that—the railroad bridge which we used to cross from the Fitch Warehouse—

Q. (Interposing) That is across what? The Examiner may not know.

A. The Canadian River washed out, and that made it necessary to make a trip of about 44 miles to get from the Fitch Warehouse out to the Zofness Camp, so this year we built a small warehouse there so we could carry the necessary stock of supplies over there without making that [fol. 687] long haul from the Fitch Warehouse.

[fol. 688] Q. The expenditures, \$500.00, I believe that is the amount for that warehouse this year. Has this already been completed?

[fol. 689] A. That was completed on, some six weeks ago, I believe.

Q. You have included in your figures here, all of the capital construction completed after the first of July, 1941?

A. I think it has been so noted on here.

Q. Yes. I just wanted to make that clear, that even though it has already been completed but, if it is completed since June 30, 1941, you are showing that here?

A. Yes.

Q. The next item you have on both types of load is to drill a well near Guymon, Oklahoma, in the Hugaton field. Have you already selected the point at which that first well will be drilled?

A. Yes, sir.

That well will be located approximately in the center of the west half of section 25, township 3, range 15. It is noted on the map as Central Life. The names of all the landowners are noted on these exhibits 44 and 45 where we expect to drill wells during the next 5 and 1/2 years.

Q. In other words, by finding that point on the map and referring to Mr. Wallace's exhibit giving the names of the landowners, you can check the lease.

A. That is right. We have to do that to figure our [fol. 690] rentals, also.

Q. Yes.

Mr. Hinton, is there any particular necessity for starting construction in the Guymon, Oklahoma area?

A. Yes.

It is not so much the matter of having to have the gas this winter that leads us to start the drilling of this well. It is due to the fact that that lease expires next year before June, I believe, next year, and we feel that we



should get this under way because that particular lease has been top leased by another company, and the only way we can hold that lease as a part of our reserve is to drill it before the expiration date.

Q. The Examiner, I am sure knows, but someone reading the record might not know what you meant by "top leasing".

A. I mean that another company has taken a lease on this particular land that becomes effective at the time of our expiration.

Q. And your lease provides that it is to be in force for a certain period of time and so long thereafter as production is had.

A. That is right.

Q. And if you get production prior to that time, your lease will continue and their lease will not become effective. I did a bit of leading there but I believe you can understand why.

Mr. Littman: I was going to ask the witness to state what company has top leases.

The Witness: Hagy, Harrington & Marsh.

Mr. Littman: What date is it expected that the well will be drilled near Guymon, Oklahoma?

The Witness: We expect to commence the drilling of that well probably in the next three or four weeks.

Mr. Littman: But how long will it take you to complete that well?

The Witness: It should be done four to six weeks after the date we start commencing to drill.

By Mr. Culton:

Q. The next item you have is to purchase an automobile for the use of the field forces in the Hugoton field. What is the necessity for that expenditure?

A. Well, we are going to have a heavier load out of the Hugoton field this winter than we ever had before, and last winter we were just operating about down to the last peg during our heavy pull, and we are going to have to put on this additional automobile to take care of the manipulation of the load because the Texas line will be operating

at full capacity and the manipulation of the load, or the taking care of the rise in fluctuations of the daily deliveries will be taken care of out of the Hugoton field.

[fol. 692] Q. The next item is to construct the Cimmaron River jetties to protect present river crossings from high water. Will you show the Examiner just where that Cimmaron River crossing is, referring to exhibit 45?

A. It is directly south of the Liberal, Kansas compressor station site. It is located in section 24, township 33, range 32.

Q. Has that construction been under consideration for some time by the company?

A. Since the last two or three high waters, yes.

Q. In other words, the last two or three high waters, on the Cimmaron River has caused you to become a little bit concerned about the crossing staying in without further protection?

A. There is considerable evidence of washing there now.

Q. Yes. These jetties, just what are they? How are they made?

A. Well, they will probably be a pipe or piles driven as deep as they can get them into the ground there. They will probably pour concrete around the base.

And then they will probably string wire along there and make it just as stable as is possible to divert washing at the points desired.

[fol. 694] I believe that the necessary right-of-way has been purchased there to enable the company to go ahead with the construction on the banks, but I haven't been down there for the past five or six weeks.

Mr. Littman: May I inquire whose estimate is this \$6,500.00, the estimate to construct the river jetties?

The Witness: That comes from the engineering department. They prepare all estimates of that type.

Mr. Littman: Then I take it it is not your own estimate?

The Witness: No, sir.

Q. Now, in 1942 we find some substantial differences between the required expenditures on the basic load and the required expenditures on the anticipated load; the aggregate expenditures under basic load being \$2,756,000, while the aggregate expenditures on the anticipated load are approximately \$4,500,000. For that reason, we will discuss the differences between those requirements as we go along.

[fol. 695] Trial Examiner: Would it not be well to indicate just the source of the figures which are included in your proposed exhibit 42 at this time?

Mr. Culton: Yes. What is the source of the figures which you used in your computations for all these expenditures?

The Witness: Well, I believe that—I tried at least to cover in this testimony an explanation that the prices used were either those of Mr. Biddison, or those which we had estimates on, or quotations on that were applicable to work that we were going to do in the near future.

By Mr. Culton:

Q. Now, with respect to the wells, we are going to get into the expense of drilling wells. What figures did you use on that?

A. We figured the unit price as worked out by Mr. Biddison which was an average of several—many contracts, and we used for the pipe, the present price, present quoted price and for liner, or tubing, we used the same, and for the cost of installing liners, and installing tubing, we worked that out—we had no prices on tubing so we [fol. 696] broke that down as best we could in our own department, and got our figure for the tubing. On liners, it was based on past experience. On acid treatment, also on past experience.

[fol. 697] Q. During 1942 under both estimates, you have drilled five wells in the Panhandle field, including acidation and liner. You would be in a position to advise the engineers for the Commission, or any other party just exactly the location of those wells that you are talking about there?

A. I think they are all rather clearly shown on the map there. It is all of the leases shown in brown color on either exhibit 44 or 45.

Q. All of those wells are in Moore County, is that correct?

[fol. 698] A. Yes.

Q. Now, in your report, you say including acidation and liner. What do you mean by "acidation"?

A. By acidation we mean the acid treatment of wells which consists of a treatment of hydrochloric acid; usually, the total treatment will run 10,000 gallons. That is what we are using now and this treatment is usually put in in the form of a light shot as we call each injection, about 500 gallons of acid, to 500 gallons of water, and this is pumped down with a compressor back into the formation just a little bit so that it has a chance to clean the side wall of the well bore.

Then the well is opened, and it is allowed to blow out, and this wash treatment is usually repeated until we get a fairly clear return.

Q. What do you mean by "clear return"?

A. I mean that the liquid coming from the well is not carrying any great quantities of larger pieces of lime and it is not cloudy with lime dust.

Q. What does the acid do to the formation?

A. Well, I believe the best term that comes to me, it disintegrates it. It just eats away the lime and creates larger pore space and connects the pore space to a greater extent allowing a much larger flow of gas to the particular area on which the acid works lying near the well bore.

[fol. 699] Q. Does it create any more gas down in the reservoir?

A. No, sir. But it does increase the deliverability of a well and, in many cases, a great deal.

Q. In other words, it increases the ability of the well to deliver volumes of gas over a certain period of time?

A. Yes, sir. And greater volumes at the same working pressure.

Trial Examiner: Just as a matter of general information, may I ask at this point, from what percentage, roughly, of the wells on which you rely is oil also produced?

The Witness: They still produce oil from some of those Huber wells on the Continental lease and we have one that is trying awfully hard to make an oil well out of itself.

By Mr. Culton:

Q. Except for those three, none of the wells produce oil at all? A. That is right.

[fol. 702] Q. Now, you have explained the acidation. What are the liners?

A. The liners are pipes which will fit inside the production string which are perforated usually with slots about 1 inch by 12 to 16 inches, that are placed through the actual pay.

Q. By "pay" you mean the producing portion of the formation?

A. The producing formation, and these slots enable the gas to come into the well bore, but at the same time, keep the wells from caving, that is, where there is a shale break, or loose material, oftentimes the wells have a tendency to continuously cave, and fill up the well bore with these rocks, shale pieces, and it is necessary to blow those wells very often, and these liners are installed to keep the well bore free from cavings that is the primary purpose of them.

Q. So those reading the record might not understand what you mean by "blowing the well"—

A. By blowing a well, I mean that the well is opened to the full size of the production string to atmosphere and allowed to blow.

Q. In other words, the gas goes off into the air?

A. Yes, sir.

Nothing is holding back but atmosphere.

Q. That is right, and as it goes out it carries these cavings out with it?

A. That is true. As long as the pressures are up as [fol. 704] high as they are now, it is rather easy to keep a well bore clean, but as these pressures—

Q. That is, by this blowing process?

A. By this blowing, but as the pressures go down, why, it is not going to be possible for those wells to carry out the same amount of cavings and therefore, these liners, we feel will be of great advantage and we are installing them somewhat earlier than might be termed necessary because we are looking to the curtailment of any gas waste that is incurred in blowing wells to just clean them.

Q. In other words, when you blow a well, you just lose the amount of gas that goes into the atmosphere in connection with the blowing; is that correct?

A. To a certain extent, you do, Mr. Culton.

Q. That is, there is no utilization of it except for cleaning purposes?

A. Not at that particular time but by blowing a well, you clean out the permeability back from the well bore, and I think that enables a better migration of gas, but it really wouldn't be felt for several years.

Q. I see. Now, are you at this time, acidizing and putting in liners in connection with all of your new wells, as you drill them? A. Yes, sir.

Q. And you provide in subsequent portions of your [fol. 705] statement here expenditures for installing liners and tubes and acidizing old wells, as the years go by?

A. That is right.

Q. What is the ordinary cost of acidizing the wells in the Panhandle? Is it exactly the same in all wells?

A. About \$1,550.00.

Q. What is the ordinary cost of installing a liner?

A. That varies with each well.

Q. Due to the depth of the well?

A. Due to the length of open hole.



That is, from the bottom of the producing string down to the total depth of the well.

Q. Could you give us roughly what the approximate amount will be for them?

[fol. 706] A. I would say from \$400 to \$700; that would be about as approximate as I would want to go.

Q. In item "b" for the year 1942, in both classifications, you provide for installing liners in two old wells in the Panhandle field. Have you found already that those liners are needed.

A. Yes, sir. If we didn't feel that they would be of advantage, we wouldn't have them on our next year's budget.

[fol. 707] Q. What do you mean by "tubing"?

A. I mean by tubing that we install a smaller string of pipe clear down to the bottom of the well to carry off water which is coming into the well bore without trying to raise a full column of water through the producing string.

Q. By the well bore, you mean that part of the producing formation around the bottom of the well, bottom of the hole—

A. The well bore, I mean that is the hole itself to the producing formation.

Q. And the water is coming in down at the bottom of the hole, or somewhere down there?

A. On this particular well, I don't think it is bottom-hole water. It is caused from a condition down around that well. When this well was first started, the contractor lost the hole, that is, he either got a crooked hole or he stuck the tool—it was before I was down there, and I don't know, and he moved over and the same thing happened again, and this well he finally completed—we bought it from another company—and the water seems to be coming in from one of those old holes which were improperly plugged.

Q. Do you remember the name of that well?

A. Yes, Sneed No. 23.

. . . . .

Q. After you drill wells, how do you get that gas into your gathering lines? Through well lines or just what do you do?

A. Yes. If, of course, at the completion of the well, we put on what we term a "Christmas tree" and this goes to a well line through the well meter and then on to the gathering line itself.

Q. What do you mean by a "Christmas tree"?

A. Well, that is an oil term that originated probably in some high pressure field where the head of the well looks like it was decorated for Christmas, and it is just a term that has carried on down through the years.

Q. It has the various connections?

A. That is right.

Q. By which you control the amount of production from the well; is that correct?

A. That is correct.

Q. And it also has certain connections by which you can open that well to the atmosphere?

A. That is right.

. . . . .

[fol. 710] Q. Now, you say after your gas comes from the Christmas tree, it goes to the well lines? A. Yes, sir.

Q. Where do the well lines carry it?

A. To the gathering lines.

Q. Now, en route between the wells and the gathering lines, is that gas measured?

A. Yes, sir. That passes through an orifice meter.

. . . . .

[fol. 711] Q. In other words, you determine the pressure on the upstream side and the pressure on the downstream side, and the differential? A. That is right.

Q. And then you apply certain well recognized tables in determining how much gas that showed to have passed through the pipe? A. I think that explains it.

Q. This measuring is all done in connection with the meter?

. . . . .

Q. And what else do you have in connection with that meter? Do you have a station of some kind enclosing that [fol. 712] meter? A. Just a regular meter house, yes.

Q. Under item "e," of each of these tables, you show laying well lines for five new wells, amounting to \$15,395. Do your papers show just exactly what the distances were on each of those well lines so they can be added together?

A. Yes.

Q. And the appropriate prices applied and you reached this \$15,395?

Q. These five new wells that you are expecting to serve, by those well lines, are the five wells that are referred to in subdivision "a"? A. Yes, sir.

Q. Item "J", that is, to construct five measuring stations. Those are the stations where you house the meters. Does that include the cost of the meter? A. Yes, sir.

Q. And everything else used in connection with that? [fol. 713] A. That is the complete meter and the house for it.

Q. Now, item "g", on the basic load, and item "h", on the anticipated load are to increase the capacity of the gathering lines from Zofness to Sneed by looping the existing line between those points and to construct additional gathering lines.

Will you point out on exhibit 45 the portion of the gathering line which you expect to loop during 1942?

A. This portion of the line is shown in brown (indicating) and we expect to loop down to the junction here (indicating) with 26 inch pipe.

[fol. 714] Q. And do you recall what that distance is that you have in mind looping?

A. Let's see—I believe that is slightly over 7 miles, down to the junction on section 55, block G-T, T&NO, Moore County, and then from that point or west to the

point where our Nield well takes off. That is in section 25, block 44, H&TC. We are going to put in a loop there of [fol. 715] various sizes, that is—we have now a stretch of 12 inch pipe in there which we are going to loop with 20, and when we go back to our 16 inch again, we are going to finish that with 16. That is shown in detail, however, in my estimate.

Q. Is that additional capacity you think, going to be needed on the basis of the present load in 1942?

A. Yes, sir. I would feel better if we had it for this winter.

Q. You will really need it and you need it now?

A. Yes, sir.

Q. Why will the need become greater in another year if there is no difference in the volume?

A. Well, the pressure on the wells will probably be an average of 11 pounds lower for the next winter's operation than it was for last winter's operation.

Q. What difference does that make in the deliverability in the gathering lines?

A. It is according to the characteristics of the well. On the average, it will mean that there will be a little greater reduction in percent of deliverability than the 11-pound drop as a percent of the average closed-in pressure of the previous year.

Q. So, it becomes a question of consideration of pressure that you carry in your gathering lines as well as the pressures in the wells; is that right? A. That is right.

[fol. 716] The point I was trying to make is that the deliverability falls off at a slightly greater rate than the pressure does.

Q. Do you anticipate having to carry some lower working pressure in your line, gathering line, to take care of that situation? A. We will be forced to.

Q. Then, if you are forced to carry a lower working pressure in your line to take care of the gas coming into that line, from wells where the pressures are becoming lower and lower, how can you take care of that gas?

A. By only one way, and that is either—I would say, additional horsepower, or additional gathering-line capacity.

Q. And this is the character of additional gathering-line capacity that you think will be needed in this particular situation?

A. It could be taken care of in either manner, and we studied both methods of trying to increase our load into Zofness. The design of our pipe-line system is such that it is almost necessary to loop the greatest part of it, even if we went to what we might term a centralized horsepower, and therefore, we decided that probably the looping would be better because we would spend about the same amount [fol. 717] of money, and we would cut down the operating cost at another compressor station which would be located out near the Zofness Camp.

Q. In other words, for that particular operation, after making a study, you reached the conclusion that looping would be the most economical method of handling it?

A. Yes, sir.

Q. Now, in the study based on the anticipated load, you have an item for constructing a trunk gathering line, looping the present line from Hansford Station South, 21.1 miles, costing some \$672,000. That item does not appear in a consideration of the basic load requirements.

A. That is right.

Q. Why is it that it would be required in 1942 under the anticipated load and yet not required in 1942 under the basic load?

A. Because we plan to take from the Texas field next year a peak day of around 205 million feet. At the present time it is 165 which means that we are going to increase that load from Texas on peak days by about 40 million cubic feet.

And that is the reason we have to have additional [fol. 718] pipe-line capacity.

Q. In other words, your judgment is that the present pipe line would not be adequate to enable you to transport that volume of gas from the Panhandle field without some addition?

A. Unless we could go to higher pressures which we are unable to do with this present type of construction we have on that line.

Q. You think that the most economic way to handle it would be by the additional looping to which you have referred?

A. I am quite sure of that.

Q. Now, will you point out to the Examiner on Exhibit 45, the place where you think it would be looped during that 1942, on the assumption that the load will be as anticipated?

A. The looping would start at Hansford Station which is located in Section 13.

Q. Hansford County, Texas?

A. I was going to give that; section 13, block 1, Washington County Railroad Survey, Hansford County, Texas, and that would extend southwest to about the town of Morse, Texas, which is located in section 30, block 5-T, T.&N.O. Railroad Survey, Hansford County, Texas.

Q. What type of line do you expect to construct there, that is, the size of it?

A. That will be a 22 inch line, but it is going to be designed to carry higher pressures than our present line. [fol. 719] That is a 500-pound line we have, and we estimated that we would put in a 700-pound test line so that—you will notice that the looping is carried from the station to the south, instead of from the discharge side of the station north.

Q. Yes, explain that and why.

A. That is in order to take care of these future leases which we have down in Hansford County.

Q. So that a person reading the record, without having seen your indicator, can understand, those are the leases colored pink and shown in Hansford and Sherman Counties, Texas?

A. That is right.

Q. Do you anticipate any drilling of those leases during the 5-year period?

A. We have not put that in our budget, but there is a possibility that we will drill one well down here (indicating), to try to get further information on the formation in that area.

Q. But you do not have it in your budget about which you have been talking? A. That is correct.



Q. What is the comparison between the size of that looping and the size of the existing line running along that same course?

A. They are the same sized lines.

[fol. 720] Q. Item "h" on the basic load, and item "k" on the anticipated load call for the construction of additional dwellings for employees, three at Zofness, three at Hansford and six at Sneed; the one at Hansford being really a ten-room hotel; the aggregate cost of these units being \$81,000. What is the necessity for that construction?

A. Well, it is a long way from the camps mentioned into any town, and if the company would not build housing facilities for these employees, it is necessary that they drive back and forth to town. Now, this particular building program has been increased over what we would originally have estimated for this year due to the fact that we have put all of our employees on a straight 40-hour week, that is, we had been working those employees 48 hours and paying 8 hours overtime and then the management just adopted the straight 40 hour week.

That meant we had to hire several more men around the compressor stations and in the pipe-line department, and in the production department, so for that reason, we have had to increase this number of houses to be built.

Q. In other words, it takes care of the new men you are now adding to the pay roll?

A. And it also takes care so that, instead of driving from the towns like they have done in the past, which I understand they have been getting mileage for driving—but they are not going to continue to do that.

[fol. 721] Q. It is considerably more economical to furnish the facilities for them out at the camp?

[fol. 722] Q. Item I on the anticipated load, being on page 27, is an expenditure of \$362,800 for additional horsepower at Sneed station to increase the cooking tower capacity and one additional auxiliary engine and one scrubber. Will you explain the necessity for those items?

A. Well, we have to have the additional horsepower due to declining field pressures which forces a lower work-

ing pressure in the pipeline. The increased cooling tower capacity is badly needed in order to cool the gas down to a temperature low enough to help in the process of dehydro[fol. 723] hydration and the auxiliary engine is necessary because we are going to run an additional pump and at the same time these auxiliary engines generate the power for the camp and it is necessary that we install this additional auxiliary engine for these two reasons. The scrubber is required because we are going to increase the capacity or the volume, rather, of the amount of gas going through to the extent that the other scrubber will be required.

Q. Just what do you do with that horsepower capacity at the station? What function does the engine serve?

A. The engine turns the compressor.

Q. And what does the compressor do then?

A. It takes the gas on the suction side of the compressor at a lower pressure and forces it to a higher pressure when it emerges from the discharge side.

Q. In other words, you take the gas into that station at a certain pressure and before you start transporting it north and east you increase the pressure?

A. That is right.

[fol. 724] Q. The Item J for 1300-horsepower at Hansford, why is that going to be needed?

A. In order to handle this additional amount of gas that will pass through the Hansford station.

Q. In other words, you are allowing for more gas that year than the present?

[fol. 727] Trial Examiner: (Interposing) Mr. Culton, to come back to the direct question, how is this future proposed expenditure and the additions and betterments contemplated in the next five years, how is that related to [fol. 728] the determination of the present rate base and the fairness of present existing rates?

Mr. Culton: I will be glad to discuss it, Mr. Examiner.

It is related to the rate base for this reason: If this company at this time made these expenditures, unquestionably they would go into the rate base at this time. Several authorities, which we will be glad to obtain and furnish to the Examiner if he desires, have held that such expenditures as may reasonably be expected in the reasonably near future may be taken into consideration.

We assert that in determining the reasonableness of [fol. 729] this price, of this existing rate, the Commission must take into consideration the expenditures which will be made in these future years and must allow a reasonable amortization of those expenditures in determining whether or not the existing rate is too high.

Now, that is with respect to the rate base, itself, and that unquestionably applies, if we are right in our legal position, both to the basic load and to the anticipated load.

Another circumstance which makes this evidence very pertinent is that as these years go by the evidence will show the over-all unit cost of producing gas is increased. It is increased because of the necessary carrying charges on the additional capital expenditures which will be required and increased by the necessary amortization of those capital expenditures and the depreciation of the items and increased by the additional operating expenses which would be necessitated by reason of the increased expenditures.

We offer the evidence, carrying out the holdings of our courts, that the only way we can determine the future is by a consideration of the past and that in looking to the future we must take into consideration known changed conditions that we must necessarily expect and also changed conditions which we may reasonably expect. Therefore, if it is assumed that the future gross operating income of this company—just taking the gross income from the receipts of gas, assume that the same volumes [fol. 730] of gas are sold on the same schedule prices which now obtain. We have our top figure. Then, to determine whether our existing rates will be too high over

these next five years, we must see what is going to be the picture as to the expenses of producing and delivering that gas, so as to have the proper idea.

This testimony is offered for the purpose of showing what this cost is going to be over this period of years so that it may be related to the probable income if we assume that the same volumes of gas are going to be sold at the same prices as those that are now existing and for the purpose of determining, irrespective of whether the rates in the past have been excessive, whether those same rates would in the future be excessive. The evidence is also offered for the weight thereof on the rate of return in that this company is not static in its operations. It is a growing company, it has needed more money in the past and is going to need much, much more money in the future, if it properly serves the public. If it furnishes gas as needed, it must have very substantial capital expenditures.

We shall offer to show, later, something with respect to what we consider the future of this company to be, the areas which it probably will serve. For the purpose of showing that the company must be in position promptly to obtain money to finance its operations and obtain that [fol. 731] money at a reasonable over-all cost, it being one of the well recognized, we think, principles that a growing company requires a greater indicated rate of return since it is going to require more money if it continues its growth.

If this were a company which had already reached the saturation stage and said, "We are satisfied with what we have done in the past; we are not wanting to do anything in the future," a slightly different position might be presented. Then, they could say, "It is an old, seasoned company, it requires no new money for its operations." But that isn't the case with this company.

We have offered in evidence here a graph showing the growth of this company in sales of m. c. f. over the period of the last five or six years. That has been a phenomenal growth. We have shown that during that same period of years there has been a tremendous increase in its plant account showing in the past; as it has obtained additional markets and as its additional markets have increased its

requirements, it has been forced to make additional capital expenditures. In connection with the drilling of wells we have already shown that we have been drilling an average of quite a good many, our gas purchase wells and our own wells together constituting about 172 wells that we have handled in the last five or six years, showing that we have had to tie on more wells in the past.

We are expecting a growth in the future which means [fol. 732] that we have to tie on more wells in the future. We have already shown that we have nearly doubled the size of our line in the last few years by looping, by the addition of more compressor stations and more power. We have added that power just as fast as the requirements of the business have justified and we expect to do that in the future.

We expect the business of this company to grow, that it will need more money, that it will serve more people and with the hope that it may serve them even more efficiently if possible.

Now, we realize that to do that we must keep, not up with the procession, we must keep ahead of the procession, because the natural gas pipeline company business is different from any other character of business. They can't tell us at one of the market towns today that they are going to need some more gas tomorrow and expect us to deliver it tomorrow, if we are just keeping up with the procession. We must have some pretty good ideas based on the past as to what we may expect in the future and then build for that future.

That is why we take the requirements which we anticipate. Then, when we get those requirements we realize that something must be done to that pipeline if we deliver those additional requirements, something must be done in the field, and we must get the wells drilled, we must [fol. 733] get the gathering lines laid, we must get the additions by way of pipeline and compressors to the pipeline all constructed before the need of their market takes place and to do that we must make these capital expenditures. In order to get the capital expenditures, we must necessarily go to the public and finance them and, in order to finance them, we must have such a rate of return as will attract capital to that type of investment.



[fol. 738] Q. Now, passing to the probable expenditures in the Hugoton field in 1942 on the two bases of loads, I note that under the basic load you provide for drilling 14 new wells in the Hugoton field and under the anticipated load 19 wells.

A. That should be 13 instead of 14, I think, because we drilled one of the 14 in 1941—well, this fall.

Q. That is explained on page 22 that that 14 includes one well drilled in 1941. Is that the Guymon well that you have already testified about?

A. That is correct, yes, sir.

Q. Where do you expect those wells to be drilled?

A. They will all be drilled in what might be termed the south central part of Texas County, Oklahoma.

Q. Will you point that out on Exhibit 45, the general [fol. 739] location?

A. It is all leases which are colored brown that will have wells drilled on them during the year 1942.

Q. Now, in order to get the production from those wells into the pipeline in 1942, what do you have to do?

A. Well, we really have to start the construction of a gathering system for Texas County, Oklahoma portion of the Hugoton field. It is necessary that we build a 22-inch line commencing in Section 31, Township 4, Range 19, Texas County, Oklahoma and extending to the southeast corner of Section 34, Township 4, Range 16, Texas County, Oklahoma and it shows better on this. For the 14 wells—

Q. (Interposing) On Exhibit 44 it shows better, you say?

A. On 44, yes, sir, for the 14 wells the line shown in brown are the ones which will be necessary to carry the gas from the leases which will be drilled during 1942.

Q. Now, in constructing that gathering line, are you constructing it so as to take care of only the wells that will be drilled in that year?

A. No, sir, we have gone ahead in our study and laid out a gathering line which we believe will take care of all of the future wells to be drilled in the general vicinity to which each of the major arms of the gathering system extends.

Q. That line about which you have been talking, is that [fol. 740] the one from Section 31, Township 4 to near Op-tima, costing \$324,000?



A. That is the trunk gathering line portion.

Q. All right, then you have an item to construct gathering line in Oklahoma connecting with the Optima line costing \$856,000. Where does that line run? \_\_\_\_\_

A. That is the line that extends southwest from Optima down to the extreme end of the southernmost end which is just out of Goodwell, Oklahoma.

Q. Are you required in that year to do any additional work between Liberal and Hansford? A. Yes, sir.

Q. What work is that?

A. That is the looping of the present 22-inch line with a 26-inch line.

Q. I see you have listed as Item P the construction of the Cimarron River crossing for the loop line costing \$220,000.

A. That is correct.

Q. How does that crossing compare with the one which is now there for the existing line?

A. It is going to be a larger crossing because we are a little short on capacity there right now and it is going to be four 16-inch lines and that price was obtained from the engineering department by getting bids from contractors and then adding the price of pipe on to the labor part of the [fol. 741] bid. I believe that I am right on that.

Q. All right. Now, you have items here for connecting well lines for 20 new wells. That is the 19 that will be drilled in 1942 and one well drilled in 1941, is that?

A. That is Item T?

Q. Item T, yes. A. Yes, that is right.

Q. That is the same type of well lines that you referred to in '41?

A. They are all 4-inch lines.

Q. And the same situation is true as to the measuring stations? A. Yes.

Q. And the same thing as to the employee housing, warehousing, new car garage, six-car garage, all of that being additional expenditures in your judgment required because of the loads which will be existing at that time?

A. Yes, sir, that is right.

Q. There is one item, Item U, ten well dehydrators, that I don't believe you referred to.

A. Well, the gas which is produced in Hugoton field is quite different from the Panhandle gas in the respect that

at the same pressure and same temperature we have far more freeze trouble in the Hugoton field and we have been working on that problem for the past several years.

[fol. 742] Now these ten well dehydrators that are mentioned here have not been located. The management has decided that we will try out these well dehydrators at points where we feel that they will be of the most benefit. They are not shown as located on the working papers anywhere.

Q. It is, to some extent, an experiment to see how it works out?

A. Yes, sir. We have several now that are.

Q. That are so far working?

A. Well, some of them work pretty good and some don't and that is the reason that we are spending this money, to try to take care of that problem in a better manner.

\* \* \* \* \*

Q. Item z-1 is to construct telephone line to serve Optima gathering line. Is that anything different from your present method of operation on the gathering line?

A. No, that is just an extension of our present telephone system which will be parallel to the pipeline which we have referred to as the Optima trunk gathering line.

Q. That is the area serving Texas County, Oklahoma? [fol. 743] A. That is right, yes, sir.

Q. You have, also, as Item z-2, installing a radio station serving an area within a 50-mile radius of Hugoton. Do you have any telephone line which would serve that area?

A. No, sir, we made a survey of that last winter and tried to use some of the local farm lines out there, but they are in very bad shape and we found that from Hugoton we only had one point from which a chart changer could call, that is, from Ulysses, and for the reason we go all directions from Hugoton there, this two-way radio has been considered to be the best method of reaching the chart changers from the Hugoton Camp.

Q. Do you think there will be any saving to you in using that two-way station for that small area rather than build a regular telephone line to it?

A. Oh, there will be a great saving.

Mr. Littman: May I inquire what does that have to do with the anticipated load?

The Witness: It is on both the present and anticipated load. It is something that we need down there quite badly because, as we get a load change and our load changers have left the main camp, why then there is no way to go out and get them because you can't, unless you start somebody else right after them to catch them. That is if we want a load increase and they were already gone we have no way of [fol. 744] changing the volume of gas that is going into the line until they get back. If we had this radio, you see, they could be reached at any time and they could turn on or turn off the gas as needed.

By Mr. Culton:

Q. In other words, as I understand you would really like to have it now.

A. We would like to have had it about three years ago.

Q. All right. I notice a credit several different years through 1943, 1942, 1944 and 1945 for contributions by joint owner on account of acidation, liners or tubing, such as that.

A. That is true. We own a 50 percent interest in 34 wells which are connected to the main line and in 12 wells which are connected to the Argus Natural Gas Company. When any work is done on those wells we take care of the accounting and our partner is charged back with the amount of money that was spent.

[fol. 745] Q. Now, in 1943 you have information respecting drilling of wells, installing liners, acidizing, constructing additional lines to serve new wells, constructing wells, lines, measuring stations, well dehydrators, and so forth. Are your explanations with respect to those items in 1943 the same explanation as to similar items in 1942 and prior years?

A. Yes, sir, the same method was used in each year.

Q. Was the same thing true as to 1944? A. Yes, sir.

Q. 1945? A. Yes, sir.

Q. And 1946 so far as similar items are concerned?

A. That is true.

Q. Mr. Hinton, in your judgment will the company be required during these various years, even if the load be not increased over and above the present load, to increase

its capital investment in the fields and lines in the amount shown under your basic load?

Mr. Littman: I object.

[fol. 746] Mr. Culton: During each of those years?

Mr. Littman: I object to that. I don't think this witness is sufficiently qualified to answer that question, if Your Honor please. He says he is not a geologist. He says these are not his own estimates. The whole thing is predicated on the assumption as to increased load handed to him by another witness. I think the record as it now stands eloquently demonstrates that this witness is in no position to answer that question with any authority.

Trial Examiner: I think the objection is strictly good, gentlemen. Mr. Hinton has presented an exhibit here which is fully itemized, including various estimates made by others and based upon other proposed exhibits, namely, 40 and 41. I think Mr. Culton, the exhibit speaks for itself and the question should not be allowed.

[fol. 751] Trial Examiner: These exhibits which are now tendered in evidence will be subjected to cross-examination and ruling deferred as to their admission.

[fol. 753] C. H. M. BURNHAM, having been previously sworn, resumed his testimony.

Direct Examination: (Continued)

By Mr. Culton:

Mr. Culton: Mr. Examiner, a tabulation has been passed around entitled "Future Capital Requirements Gas Transmission Facilities, Liberal Station and Eastward", Witness Burnham.

We would like to have that marked exhibit 47 for identification.

Trial Examiner: It will be so marked.

Q. Mr. Burnham, have you prepared a tabulation with respect to the future capital requirements of Panhandle Eastern from the Liberal Station eastward?

A. I have.

[fol. 754] Q. In making that computation, did you take into consideration any assumed market requirements of m. e. f. of gas?

A. I did.

Q. What assumed requirements did you take into consideration in that computation?

A. Mr. Morton's estimate.

Q. Is that the estimate which has been offered in evidence as exhibit 40? A. It is.

Q. Showing the estimated main line sales from 1941 to 1946, inclusive? A. That is correct.

Q. What part of the system did you consider in your study?

A. I considered the main transmission system from Liberal Compressor Station east to the terminus of the line.

Q. And what did you consider as the terminus of the line? A. Dana, Indiana.

Q. In determining the sufficiency of the existing transportation facilities, such as pipe lines, compressor stations, and so forth, to handle increasing loads, from what part of the line do you start to make your computations?

A. It is proper for the designing engineer to begin at the point farthest removed from the source of supply, and [fol. 755] design backwards, as you might say, toward the source of supply, station by station and loop by loop, until he reaches the source.

Q. Now, in addition to making the computations with respect to the main line itself, that is, from Dana westward, did you make any computations with respect to requirements for markets which the company expects to serve within the next five and one-half years which are not at this time being served?

A. I did.

Q. Will you go to exhibit 15, and starting at Dana, explain to the Examiner, just exactly how you made your study in order to determine where necessary capital expenditures will be required for certain loads.

By the way, is that method you referred to anything unusual or do you do it ordinarily?

A. It is the very usual thing to do.

Q. By whom? A. By the engineers.

Q. As far as this company is concerned, have you had any previous experience in the past?

A. Yes, indeed.

(Going to the map) At Dana we have an assumed quantity of gas to be delivered, or estimated quantity is probably better, and we also have a delivery pressure to maintain there.

[fol. 756] We take this quantity of gas and by applying the proper formulae, we work backwards or westward on our main line system to the next point of delivery.

Q. Where would that be?

A. That would be this line (indicating) that leads from our main line system up to Danville, Illinois.

Q. Is that a lateral line?

A. That is a lateral line.

Here we pick up the delivery of gas which Danville will require on the peak day.

Q. That is in addition to the gas required at Dana?

A. It is.

Q. All right.

A. From Danville then, we proceed westward carrying this increased quantity of gas to the next point of delivery.

Which is the lateral line leading to Urbana and Champaign. Here we pick up the quantity of gas to be dropped off at that point. We bring then the sum of the deliveries to be made at Dana, Danville, Champaign and Urbana into the first compressor station which is, in this instance, Tuscola compressor station.

Now, if the pressure indicated by our formulas is in excess of 500 pounds in this station, that indicates that we [fol. 757] do not have enough pipe capacity between Tuscola Station and Dana, so then the calculator must go back, properly install another loop in his computation and work back to Tuscola until he ends at Tuscola with an operating pressure for which the equipment is designed to meet.



The Tuscola compressor station will operate at a certain ratio of compression, that is, a certain ratio between the discharge pressure and the suction pressure, so again we start a new problem, as you might say, of designing between Tuscola Station and the next station to the west.

We pick up at Tuscola station the fuel required for the Tuscola station on the peak day and add it to the total quantity that we have carried back to Tuscola station.

In a manner similar to the manner just described as coming back from Dana to Tuscola, we proceed on westward to Glenarm Station, picking up the various markets as they come off the main line system.

Q. Mr. Burnham, the method is clear enough, isn't it, Mr. Examiner, without carrying the same principle all the way back to the beginning. Without taking the time to explain that all the way back to Liberal compressor station, is that same method followed as you go back westward, picking up the additional loads as you go westward?

A. It is.

Q. And then when you get to the station at Liberal, you [fol. 758] know exactly how much gas your line will be able to furnish at given pressures to serve all of the markets in the aggregate.

A. We do.

Q. Now, do you sometimes in addition to looping add additional power for the purpose of more easily transporting the desired volumes of gas?

A. There is a certain economic balance between power and pipe which will result in the greatest economy in a transportation of this gas, and we strive to work within close limits to that economic balance.

Q. You have noted here on exhibit 47 an expenditure for Southern Michigan, North Line, in 1941, and will you point out to the Examiner where that is located as shown by exhibit 15?

A. The Southern Michigan North Line begins a short distance inside the Michigan State Line.

Q. Making a connection with what line?

A. Michigan Gas Transmission Line to Detroit.

Q. All right.

A. And extends northward to a proposed junction west of Ann Arbor, Michigan. The north line thence extends in a northeasterly direction to a proposed junction southwest of Pontiac, Michigan. The line thence proceeds northward to a point near Flint and thence northwest to a point near Saginaw, Michigan.

[fol. 767] Q. Mr. Burnham, in line No. 5 of Exhibit 47, you show certain lateral lines. What do you mean by "lateral lines"?

A. Lateral lines are lines leading off of already existing feeders, and the items shown there involve lateral lines which I shall indicate on the map to Galesburg, Illinois, to Abington and Knoxville, also in the State of Illinois, to Greenfield, Indiana which is not shown on this map but it is a town directly east of Indianapolis, to Adrian, Michigan, where a lateral line takes off of our north line at a point about midway between the junction with the Michigan Transmission System and the junction just west of Ann Arbor.

Q. In other words, those are lines for the purpose of tying the cities into the general distribution line that you have there, that is, connecting to the companies' own transmission line?

A. Yes, and to fulfill contract terms already entered into.

Q. See. What progress has been made with respect to doing the work necessary in 1941, under your additions to the main line?

A. We have already secured the right-of-way for main [fol. 768] line additions in Illinois and Missouri, and some in Kansas.

Q. Are those particular areas in which you do the additional main line construction in 1941 indicated in any particular way on exhibit 15?

A. They are shown in purple dotted lines.

We have already received a considerable amount of material for these lines with the exception of pipe. That material is in warehouses, strategically located so that construction can proceed immediately upon the receipt of pipe.

We have let the contracts for the construction of the line, main line additions, in Illinois. We have bids on main line additions in Missouri and Kansas. I think that is the extent of our progress in respect to main lines construction.

Q. Now, were the prices which you used in showing the cost of additions to main lines—how were they determined?

A. They were determined from these contract prices, either entered into, or the low bidder on this work here in Missouri and Kansas. The pipe prices were secured in co-operation with the purchasing department. Other prices we already know because we have some of that material on hand. They have bought and paid for some of that other material.

[fol. 769] Q. What is the situation as to the additions to compressor stations?

A. The items shown in line 3, additions to compressor stations, in the amount of \$344,100, covers the addition of a compressor unit in each of our Illinois compressor stations, Tuscola, Glenarm and Pleasant Hill. The work at Tuscola and Glenarm is approximately 80 percent completed. The units are already installed but not in operating condition.

[fol. 770] The work at Pleasant Hill is, I would estimate, 60 percent completed.

The compressor unit has not yet been received but is promised for delivery on November 1.

Q. What is the stage of construction as to the Southern Michigan north line?

A. The progress made on the north line in Michigan consists of approximately 80 percent of our rights-of-way having been secured, practically all engineering work having been done, and involves, or rather progress has been made to the extent of numerous items of material having been received and placed in warehouses.

We have received in addition to these small items material involved in construction of a line such as this, about 13 miles of 12 inch pipe.

Q. How did you arrive at the cost of the estimated expenditure for the Southern Michigan north line?

A. The contract for the work in Southern Michigan has already been let. We used, therefore the contract prices for the labor and for the pipe and materials; as I have said before, we used prices secured through the cooperation of the purchasing department.

Q. Is that program also contingent on being able to get some additional pipe to complete the work?

A. It is.

[fol. 771] Q. The lateral lines, what is the situation with respect to lateral lines shown on line 5?

A. The Galesburg lateral line involves the lifting of a lateral line in Kansas known as the Mildred lateral line, and the purchase of sufficient additional 8 inch pipe to complete the 40-some mile of line involved.

We have an application before the Commission, as I understand it, for permission to lift the Mildred lateral and make that pipe available.

Mr. Littman: You mean before the Federal Power Commission?

The Witness: Yes. The contract has been negotiated for laying this line. The rights-of-way have been taken. The engineering work has been done. Some materials are already on hand.

By Mr. Culton:

Q. How did you arrive at the cost of that line?

A. We used the contract price for the cost of laying, and I have used, in the case of the Galesburg line, the cash required to lift the Mildred line and re-lay it in its new location in Illinois.

Now, the other lateral lines in Illinois are in this situation:

The rights-of-way to Abington and Knoxville have been secured; some materials are on hand but no pipe is on hand for those two towns.

[fol. 772] So much for the lateral lines in Illinois.

In Indiana, we are presently engaged in laying the line to Greenfield. Pipe is on hand and the work is progressing very rapidly.

Another item under lateral lines, in line 5, is the line to Adrian, Michigan. Rights-of-way have been taken on that

line, the pipe has been requisitioned. I do not know whether the order has been placed for pipe or not. I believe that covers the discussion.

Q. That covers the discussion of your lateral lines. I notice in 1942, in 1944, in 1945 and in 1946, you have different items for additions to main lines.

Is your method of determining when those additions to main lines will be required similar to that which you used in connection with 1941 except taking into consideration added demands as the years passed by under Mr. Morton's estimate?

A. That is correct.

Q. When do you get the main line completely looped under that program which you have there?

A. In the year 1942.

Q. Then, what are the items shown on lines 20, 24, 25 and 30 as additions to main lines?

A. I believe that is item 21, that is the first one.

Q. You are right.

[fol. 773] A. Those are the estimated investments which this company will be required to make in a third line, or loops constituting a third line.

Q. If the anticipated requirements materialize?

A. That is correct.

Q. Is that looping the same type of looping you are now doing on other work? A. Yes, it is.

Q. And you determine the points at which that looping will be required for each of those years by the same method used in determining the other loop?

A. That is correct.

Q. I notice that in 1942, 1943, 1944, 1945 and 1946, during each of those years, you have additions to compressor stations. Has the necessity for those stations been similar to those which will require additions in 1941?

A. Yes.

Q. Resulting from future increases and load requirements? A. That is correct.

Q. Now, in 1942, under line 11, you have the South Michigan West Line.

Explain to the Examiner just what that is.



A. The South Michigan West Line originates at this junction point west of Ann Arbor, and extends for a [fol. 774] distance of approximately 82 miles to a point near Kalamazoo, Michigan. It is to be built of 16 inch pipe as far as Battle Creek and 12 inch pipe from Battle Creek to Kalamazoo.

Q. Has any of the rights-of-way been obtained for that as yet? A. No.

Q. It is merely in prospect at this time?

A. We are preparing maps, getting ready to take rights-of-way.

Q. Yes. When do you expect to start the rights-of-way men to work on that line?

A. Within the next week or two.

Q. In 1942, 1943 and 1945 you have additions to gasoline and dehydration equipment.

What is the necessity of those items?

A. Our gasoline dehydration plant is already up to load, in fact, this coming winter we anticipate we will have to by-pass some gas around this plant.

Q. Then, the necessity for these increases is the same as the loop lines—as the additional markets come on you require additional facilities to dehydrate the additional gas; is that, in substance, it?

A. That is right.

Q. Item No. 12—line 12, for 1942, is telephone line east—

. . . . .

[fol. 775] Mr. Culton: Mr. Burnham, what is the subsidiary company referred to on your caption sheet, the caption of exhibit No. 47?

The Witness: The Illinois Natural Gas Company, a wholly owned subsidiary which owns all the lateral lines in Illinois and will own the lateral lines to be built from our Peoria line to Galesburg.

. . . . .

Q. What is true as to the Michigan situation? Do you have any subsidiary there?

A. Well, the Panhandle Eastern Pipe Line Company is conducting this work in Michigan and it has—



Q. (Interposing) There is no existing subsidiary of Panhandle Eastern Pipe Line Company except the Illinois Company; is that correct?

A. That is correct.

Mr. Williams: The point of origin of the Michigan lateral lines, is that within the material limit of the State of Michigan?

The Witness: As I just testified, it originates at a point just inside the State of Michigan.

By Mr. Culton:

Q. And intersects no state line at all?

A. None whatever.

[fol. 777] Mr. Gorman: Do I understand correctly that the Illinois Natural Gas Company is merely a corporate convenience but for all intents and purposes it is considered as a part of The Panhandle Eastern System?

The Witness: I would prefer not to answer that.

Mr. Culton: I will say that is a legal question, but the company so considers, and it has taken that position, I think, in a little contest with the Illinois Commission.

Counsel is probably familiar with that.

By Mr. Culton:

Q. I believe I started to ask you to discuss line 12, the telephone line east, in 1942.

A. With the completion of a completely looped system from Liberal to Dana, and considering the greatly increased loads which would be carried by that completely looped system; it would be necessary that the company extend its telephone—present telephone system across the state of Missouri and Illinois and connect with each and every compressor station along the line in those two states.

At the same time we propose to put in drops or connections at or near each of the main-line gate-valves where cross-over connections are available, between the two lines.

We also contemplate having telephone lines into our warehouses so that we will be in complete communication

at all times with the employees and points of operation, [fol. 778] important points of operation, on our line, east of Kansas City.

Q. In other words, the company now has a line covering all of its property west of Kansas City?

A. Yes, sir. It has and which line serves our field system.

Q. In all three States? A. In all three states.

Q. Will you explain why it is necessary to have a telephone line for the proper operation of the company's business?

A. As I stated before, this increased load will require much closer attention to the operating conditions at these compressor stations. When the compressor stations are connected with each other with two lines, rather than a partially looped single line, the response to pressure increases will be much quicker, or to state it conversely, should be much quicker and will require much closer attention from the central office in Kansas City.

Q. What method are you now using to handle such matters east of Kansas City?

A. We depend upon the commercial lines for communication now, that is, telegraph and telephone and we have found it highly unsatisfactory under some conditions.

Q. I see you have reference to lateral line 2, 1942, line No. 13.

What are those? Additional lateral lines for South [fol. 779] Michigan West Line?

A. That is the lateral line to Bloomington, Illinois, a fairly good-sized city south and east of Peoria. As I stated in my testimony in September, we are about to secure a contract to cover the requirements of Bloomington, Illinois.

Q. The company has in mind serving that area at any rate? A. It does.

Q. I notice on line 14, we have a warehouse at Paola.

Mr. Littman: Pardon me. Will you please show us the lateral you just described, the Bloomington lateral? From what point does it run, to what point?

The Witness: Bloomington lies about 29 miles east of our Peoria lateral and somewhat southeast of Peoria itself. We propose to build a line from the Peoria lateral also due east to Bloomington.

Mr. Littman: It would run from a point on the lateral in Tazewell County over to McLean County and what is [fol. 780] the approximate length of that line?

The Witness: I just stated approximately 29 miles.

By Mr. Culton:

Q: All right, the Paola warehouse.

A: We find, I might say that Paola is located in Miami County, Kansas, a short distance from the Louisburg compressing station. We find that the company has slightly outgrown the Paola Warehouse and we contemplate substantial additions to that warehouse.

Q: I believe you discussed all the separate items. Now, will you tell us the aggregate of the estimated capital requirements for the year 1941, the remainder of the year, in order to satisfy the estimated requirements?

A: The aggregate shown here for 1941 is \$8,993,700.

Q: And for 1942? A: \$6,791,300.

Q: And for 1943? A: \$3,768,800.

Q: And for 1944? A: \$6,684,100.

Q: And for 1945? A: \$7,087,100.

[fol. 781] Q: And for 1946? A: \$3,617,600.

Q: Making a total of how much? A: \$36,942,600.

[fol. 782] Q: What prices did you use in subsequent years after 1941?

A: I used the same unit prices as existing today.

Trial Examiner: Did you make all these estimates or were they made under your direct supervision?

The Witness: Under my direct supervision.

Trial Examiner: Does the growth loads and anticipation and so forth—you were relying on exhibits 40 and 41?

The Witness: I was.

By Mr. Culton:

Q. Mr. Burnham, do you know how the prices, unit prices for extensions of gathering lines and similar facilities which were used by Mr. Hinton were obtained by him? Were they obtained from your department?

A. They were prepared in my department under my direction and were obtained from my department.

[fol. 796] Mr. Culton: Mr. Gorman, the record may not be fully complete.

Mr. Littman: As I indicated a moment ago, Mr. Burnham, I wanted to ask you a few questions with respect to [fol. 797] Exhibit 47 before proceeding with cross-examination of the exhibits that you prepared for presentation at the previous hearing.

Calling your attention to line 5 on Exhibit 47 entitled "Lateral Lines" in the amount of \$463,800, does that refer entirely to the lateral to be transferred to the State of Illinois and to be installed between Peoria and Galesburg, approximately, or does that include another lateral?

The Witness: That includes five lateral lines and I shall give you the names and the amounts.

Mr. Littman: Will you please do that?

The Witness: Adrian lateral, \$47,914, Adrian, Michigan.

Mr. Littman: Which one is that?

The Witness: Adrian, Michigan.

Galesburg, Illinois lateral, \$291,500; Abingdon, Illinois lateral, \$38,500; Knoxville, Illinois lateral, \$2,600; Greenfield, Indiana lateral, \$63,300. In adding those five together I rounded off the figures to the even hundred.

Mr. Littman: Now a part of the Galesburg lateral will consist or be composed of pipe that will be removed from the present Mildred lateral in Kansas?

The Witness: That is correct.

Mr. Littman: How much of the \$291,500 is represented by the present Mildred lateral in Kansas?

The Witness: The \$291,500 is an item which is composed of the cash required to do that job and includes no [fol. 798] pipe whatever, that is insofar as Mildred is concerned. It does include pipe to the amount necessary to make up the difference between the length of the pipe to be recovered from the Mildred lateral and the total distance to Galesburg.

Mr. Littman: I see. In other words, there will be charged on the books of the Illinois Natural Gas Company only the cost of removing and hauling and relocating the Mildred lateral line.

The Witness: I believe I can answer that this \$291,500 item isn't intended to be the amount charged on the books at all. It is the cash, as I said before, required to bring about this change.

Now, what the company's books reflect after the change has been made I cannot give you an exact figure.

Mr. Littman: Well, does that amount include the cost of the pipe?

The Witness: There is no cash involved insofar as the pipe in Mildred lateral is concerned. The cash involved is in lifting Mildred lateral, moving it to Illinois, relaying it and buying enough new pipe to make up the difference and laying it.

[fol. 799] Mr. Littman: And does not reflect the cost of the pipe, itself, that is insofar as the Mildred lateral is concerned?

The Witness: It does not, it does not reflect that.

[fol. 800] Mr. Williams: Do you know whether or not these items as given by you include interest during construction?

The Witness: They do.

Mr. Williams: Can you state what interest rate was used in computing interest during construction?

The Witness: No, but my working papers will show the amounts charged into these estimates for interest during construction.

Mr. Williams: Will your working papers show the period of time over which interest is charged?

The Witness: Yes, it will show the period of time during which construction will be pursued and I assume that interest will be charged during that period:

[fol. 801]      Cross-Examination.

By Mr. Littman:

Q. Mr. Burgham, you testified on direct examination that the Panhandle Eastern Pipe Line Company serves through its system, directly or indirectly, some 200 cities and communities having an aggregate population of upwards of 3,000,000 persons, did you not?

A. I believe I did.

Q. Does Panhandle Eastern Pipe Line Company and its wholly owned subsidiary, Illinois Natural Gas Company, engage in any local distribution of natural gas?

A. It does not.

Q. Do they own any facilities for the local distribution of natural gas?

A. They do not.

Q. What proportion of Panhandle Eastern Pipe Line Company's gas is delivered to Detroit, approximately?

A. In the order of 40 percent, I should say.

Q. Do I correctly understand your direct testimony to be that Panhandle Eastern Pipe Line Company produces and purchases natural gas in Texas, Oklahoma and Kansas [fol. 802] and transports that gas by means of its own pipeline system through those states and through the states of Missouri and Illinois as far east as the Illinois-Indiana state line?

A. That is correct.

Q. And is it also a fact that such natural gas is transported for Panhandle Eastern Pipe Line Company by



Michigan Gas Transmission Company from the Illinois-Indiana state line in a generally easterly and northerly direction through the states of Indiana, Ohio, Michigan as far as the City of Detroit, Michigan by means of Michigan Gas Transmission Corporation's pipeline?

A. That is correct.

Q. At what point does the gas of Panhandle Eastern Pipe Line Company first enter the pipeline of Michigan Gas Transmission Corporation?

A. At our measuring station located at Dana, Indiana.

Q. Is Dana measuring station located in Indiana?

A. It is, just a few hundred feet across the state line in Indiana.

Q. Does Panhandle Eastern Pipe Line Company own any property in Indiana, Ohio, or Michigan?

A. It owns property in Indiana, to the extent of that two or three hundred feet that I just mentioned and it is now acquiring more property in Indiana as a result of the construction of this lateral line to Greenfield, Indiana. To [fol. 803] my knowledge it owns no property in Ohio and it goes without saying that it is acquiring property in Michigan to the extent of its new construction work in that state.

Q. Now, the Greenfield lateral has not yet been completed, has it?

A. No.

Q. How far has the construction progressed?

A. The pipe is on the ground, the contractor is on the ground, the rights-of-way have been secured and I should believe that by now active construction is being engaged in.

Q. Who is going to own that line when it is completed?

A. Panhandle Eastern Pipe Line Company.

Q. Well that will be, then, the only lateral running off Panhandle Eastern's main line, I mean off Michigan Gas Transmission Corporation's main line that will be owned by Panhandle Eastern Company when it is completed. Is that correct?

A. In Indiana?

[fol. 804] Q. In Indiana, yes.

Q. Well now, Panhandle Eastern Pipe Line Company sells gas in Indiana, Ohio, and Michigan, does it not?

A. We have customers in Michigan, the Michigan Consolidated Gas Company and we sell gas to the City of Monroe. In Ohio we have several customers. In Indiana I do not know whether they are our customers or the Michigan Gas Transmission Company's customers that they serve there at the present moment.

Q. Might not your schedule 2 of Exhibit 17 refresh your recollection on that score, Mr. Burham?

[fol. 806] The Witness: We have one customer now, as I look over the schedule, in Indiana.

By Mr. Littman:

Q. What is the name of that customer?

A. Kentucky Natural Gas Corporation, another pipe line company.

Q. And you have customers in Ohio, do you not?

A. Yes.

Q. I don't recall whether you have mentioned those or not. A. Well, they are shown on page 3, Schedule 2.

Q. Page 3 of Schedule 2.

Mr. Littman: Will you name the customers in Ohio?

The Witness: Central States Natural Gas Company, Ohio Gas Light & Coke Company, The Toledo Edison Company.

Q. Does the Panhandle Eastern Pipe Line Company sell gas to the Michigan Gas Transmission Corporation? [fol. 807] A. Yes, we do.

Q. In other words, I take it that Michigan Gas Transmission Corporation is not only a vendee of gas of Panhandle Eastern Pipe Line Company, but also transports gas for and on behalf of Panhandle Eastern Pipe Line Company. A. It does.

Q. Can you state generally under what arrangement, and I say just generally, Panhandle Eastern Pipe Line Company delivers gas in Indiana, Ohio and Michigan with-

out, itself, owning any facilities in those states other than the facilities which you mentioned a few moments ago?

A. Panhandle Eastern Pipe Line Company pays Michigan Gas Transmission Corporation a consideration for the transportation of that gas.

Q. And, in turn, Michigan Gas Transmission Corporation delivers Panhandle Eastern Pipe Line Company's gas to Panhandle Eastern Pipe Line Company's customers in those states? A. That is correct.

Q. To wit, Ohio, Indiana and Michigan?

A. That is correct.

[fol. 809] Q. Does this exhibit, No. 17, Schedule 2, show all of the customers in Column A of Panhandle Eastern Pipe Line Company, Illinois Natural Gas Company and Michigan Gas Transmission Corporation?

A. It does, as of June 30, 1941.

Q. Are the sales by Panhandle Eastern Pipe Line Company and Illinois Natural Gas Company to the customers shown in Column A of Schedule 2 of your Exhibit 17, sales of natural gas for resale for ultimate public consumption for domestic, commercial and industrial use in the communities shown in Column C of that schedule?

A. They are.

Q. Will you please turn to Schedule 3 of your Exhibit 17? Does that schedule show all of the industrial customers receiving natural gas from Panhandle Eastern Pipe Line Company and Illinois Natural Gas Company?

A. It does.

Q. Are these industrial sales what might be called sales for resale or not? A. They are not.

Q. Are there any sales not for resale made by Panhandle Eastern Pipe Line Company other than those shown in Schedule 3 of Exhibit 17?

A. Not to my knowledge.

[fol. 812] Q. Well now, Panhandle Eastern Pipe Line Company sells gas to certain customers which gas does not at any time flow through the Panhandle Eastern Pipe Line Company's main transmission line, does it not?

A. That is correct, in one instance that I know of.

Q. And what is that instance?

A. The Argus Natural Gas Company, Inc.

Q. Will you elaborate on the Argus Natural Gas Company, the sales of it, and tell us approximately where the properties are located and generally the nature of the transaction?

A. The properties are located in southwest Kansas near the Hugoton field and its principal market is Dodge City, if my recollection is correct.

Trial Examiner: Your exhibit shows Garden City, does it not?

The Witness: Yes, that is true.

[fol. 813] A. Well, then I am mistaken. Garden City is the principal community which is served instead of Dodge City and we have a contract to supply a certain portion of those markets at the wells, delivered into their pipelines.

Q. Mr. Burnham, would you state whether or not Argus takes the gas from Panhandle Eastern Pipe Line Company at the wellhead of the wells of Panhandle Eastern?

A. I believe I have already stated that to be the case.

Q. Will you please, again, refer to Exhibit 15 and state at what point the main transmission line of Panhandle [fol. 814] Eastern Pipe Line Company begins?

A. We consider the main transmission system to begin at Liberal, although under some interpretations and definitions you might consider the beginning at Sneed station, however, I prefer the definition to the effect that the main transmission system begins at Liberal station.

Mr. Cullor: You mean you consider that beginning at Liberal because from an operating standpoint that is your understanding, but from a classification of accounts standpoint [fol. 815] point it starts at Sneed?

The Witness: That is correct, sir.

Mr. Littman: Well, let's determine the fact; that is the operating fact. That line running from Sneed compressor station north and east to Liberal compressor station is a 22-inch line?

The Witness: That is correct.

Q. And isn't it a fact that all of the Texas gas, both produced and purchased, which enters the main transmission [fol. 816] line or which enters the transmission line of Panhandle Eastern Pipe Line Company comes into that line at Windmill Junction south of Sneed compressor station, does it not?

A. Substantially that is correct.

[fol. 817] Q. Are you now prepared to answer the question, Mr. Burnham?

A. Yes, I am. The production is received from the [fol. 818] King Oil Company into our 22-inch line, a short distance northeast of Windmill Junction and that is all the gas that constitutes, along with the gas that comes in at the junction point, all the gas that is transmitted through that 22-inch line.

Q. And the point that you refer to with respect to the two wells is south, is it not, of Sneed compressor station?

A. Yes.

Q. Can you state how far south of Sneed compressor station?

A. I would say about three-quarters of a mile.

Q. And what is the distance between Windmill Junction and the Sneed compressor station, along the transmission line? A. Two and two-thirds miles.

Q. Now, isn't it a fact therefore, to make it clear, that no Texas gas enters the main transmission line north of Sneed compressor station?

A. That is the situation today.

[fol. 819] Q. Now, tracing the main transmission line north from Sneed compressor station to Liberal compres-



sor station, at what point or points does Oklahoma or Kansas gas enter that line?

A. There is no Oklahoma gas nor Kansas gas in the line at that time.

Q. I think there is one. A. In Oklahoma?

Q. Texas County, Oklahoma, is there not a main line delivery from the Cimarron Utilities Company?

A. I am sorry, but I believe that is correct.

Q. You don't know of any others, do you? A. No.

Q. Neither do we. Does any gas enter the main transmission line of Panhandle Eastern Pipe Line Company between Liberal compressor station in Kansas and Dana measuring station near the Illinois-Indiana state line? That is quite a distance.

A. My knowledge is more complete in this respect. There is no gas entering the main line system between Liberal compressor station and Dana, Indiana.

Q. Now, going back to Liberal station for a moment, that is back to Liberal compressor station for a moment, will you describe the gas that enters at or near the Liberal compressor station, that is, tell us the source of that gas, please?

[fol. 820]. A. The gas entering the main line system at Liberal compressor station is gathered from the Hugoton field in Kansas which Hugoton field extends down into Oklahoma and Texas, but at the moment no production is delivered into our system from Texas, it being derived entirely, insofar as the Hugoton field is concerned, from Kansas and Oklahoma, a very small quantity of gas being produced from Oklahoma.

Q. And that Oklahoma gas is wholly purchased, isn't it? A. That is correct.

Q. And the Kansas gas is both produced and purchased? A. Yes.

Q. Does any of the so-called local area gas in eastern Kansas and western Missouri near Kansas City at any time enter the main transmission lines of Panhandle Eastern Pipe Line Company? A. No, it does not.

Mr. Littman: If Your Honor please, I wonder whether counsel for Panhandle Eastern Pipe Line Company and I take it you are also counsel for Illinois Natural Pipe



Line Company, would be willing to stipulate on this record that Panhandle Eastern Pipe Line Company and Illinois [fol. 821] Natural Gas Company engage in the transportation of natural gas in interstate commerce and in the sale in interstate commerce of such gas for resale and are natural gas companies within the meaning of the Natural Gas Act.

I wonder whether counsel would be willing at this time to stipulate into the record what I have just read.

Mr. Culton: I don't know that we can do that in all of its ramifications. We probably have a legal conclusion. I think there is no question but what the operations of the two companies, together, reflect an interstate transaction and we have not raised any question on the matter.

I will say this, counsel, that we are taking a position somewhat similar to what counsel has indicated in a case which is now pending in the Supreme Court of the United States where the Supreme Court of Illinois held to the contrary with respect to the Illinois Natural Gas Company, therefore, we would hesitate to formally stipulate something which might turn around and hit us if the Supreme Court holds that both we and the Power Commission are wrong in the present contention.

I will say this; that we are not at this time making any contest of the propriety of the Commission's making this investigation, based on a procedural question, nor are we making any contention other than that we recognize that the Illinois Natural is nothing in the world but an operating department or arm of the Panhandle Eastern Pipe Line Company.

Trial Examiner: That statement is made in spite of the separate corporate entity of the Illinois?

Mr. Culton: We are disregarding the separate corporate entity of those two companies in this investigation, Mr. Examiner. Our exhibits are prepared as if they are all one, the exhibits which we shall hereafter offer in evidence are all prepared on the assumption that the two are one.

We are taking that position in the case which counsel—counsel knows the case I am talking about—where we

are contending the Illinois Commission has no jurisdiction whatever over the Illinois Company.

Mr. Littman: That is, you are contending that the Federal Power Commission has jurisdiction?

Mr. Culton: We are contending that the Federal Power Commission has that jurisdiction and we think we are right, we think the Federal Power Commission is right. I have no objection to stipulating what the facts are but the conclusions, of course, are a different question.

Trial Examiner: Whether or not it heretofore appears in our record, is it a fact that the Illinois company is the wholly owned subsidiary of Panhandle?

Mr. Culton: At this time. In the past it has had other subsidiaries. In the past it has had distribution subsidiaries, Mr. Examiner, but that was dissolved sometime [fol. 823] back. There is no affiliation of any character between the present owners of that company and the Panhandle Eastern Pipe Line Company. The Illinois Corporation is its only subsidiary.

By Mr. Littman:

Q. Mr. Burnham, Panhandle Eastern Pipe Line Company has one gasoline extraction plant, has it not?

A. That is correct.

Q. Where is that plant located?

A. On the site of the Liberal compressor station.

Q. Why was the Liberal gasoline extraction plant constructed at Liberal?

A. Because the gas is gathered to this central point and it is more economic to build one large gasoline dehydration plant at one central plant than have several such plants scattered throughout the two fields.

Q. When was it constructed? A. In 1936.

Q. And 1937?

[fol. 824] A. And additions have since been made.

Q. Why was it necessary to extract the gasoline from Panhandle Eastern's gas by means of Liberal gasoline extraction plant?

A. Had the gasoline not been extracted, it would have condensed in our transmission system and would have

given us no end of trouble in trying to get the full flow efficiency of our system when needed.

Q. The gasoline extraction also makes the gas more merchantable, doesn't it? A. It does.

Q. And facilitates the transportation thereof, does it not? A. It does.

Q. In some respects, I presume, the extraction of gasoline from the line is analogous or similar to the dehydration process, is it not? A. In some respects.

Q. That is, in that it facilitates the transportation and aids in making the gas more merchantable?

A. That is correct.

[fol. 826] Q. Do you know what part of the present system was in service on January 1, 1933?

A. The single, original single line and three compressor stations, to the best of my knowledge.

[fol. 828] Q. What is the present maximum daily capacity of Panhandle Eastern, of the Panhandle Eastern Pipe Line Company system?

A. Approximately 250,000,000 cubic feet per day. That is sales capacity.

Q. Will you state what you mean by "sales capacity"?

A. We design for a maximum day and we design for a maximum day sales so we always express the capacity of the system as sales capacity, gas that might be sold on a peak day.

Q. You mean deliverable capacity? A. Correct.

[fol. 831] Q. What ultimate daily capacity of the system is now contemplated?

A. What do you mean by "ultimate", how many years?

Mr. Littman: Let's take 1946, the last year of your proposed capital additions exhibits.

The Witness: For the winter of '46-47 we anticipate that our sales capacity must have been built to handle or

deliver the quantity shown on Mr. Morton's estimate for that winter.

Q. How much is that?

A. With a slight correction or reduction due to the fact that we design for a quantity resulting from deducting [fol. 832] from Mr. Morton's estimate the readily interruptable gas on that particular day, my figure shows we should have a capacity of 457,250,000 to carry the system peak on that day.

Q. On what day?

A. On the peak day of the winter of '46-47, which will, no doubt, occur in 1947 in January or February.

Q. Just to make certain of the understanding, shall we; Mr. Burnham, is your figure of 457,250 m. c. f. comparable to Mr. Morton—is that 457,250 m. c. f.? A. Yes.

Q. Is that figure comparable with Mr. Morton's figure shown in Exhibit 40, Line II, at the bottom of that line or column rather, as 441,900 m. c. f.? I wanted to call that to your attention so as to make certain—

A. (Interposing) No, that is not.

Q. That is not comparable?

A. No, sir.

Q. Why isn't it, what is the difference?

A. All right, the figure which I gave you is the amount to be handled the winter following Mr. Morton's estimate there of 441,900,000. During that winter, as shown on Mr. Morton's estimate under 1946 we propose to design for a delivery of 429,900,000.

Q. That is compared with Mr. Morton's figure of what? [fol. 833] A. 441,900,000. The difference represents the readily interruptable gas which we shall shut off on that day.

[fol. 834] Q. Were all of the compressor station sites obtained with the original right-of-way?

A. I think I testified to the fact that all were secured except two.

Q. And which were the two?

A. Hansford and Tuscola.

[fol. 836] Q. Are you familiar with the construction problems encountered in connection with the building of the loop lines? A. Yes, I am.

Q. Does Panhandle Eastern Pipe Line Company have records showing the quantity of machine trenching and hand trenching employed in the construction of the original and loop lines?

A. I doubt if we have, of the original lines, but insofar as the loop line is concerned, in the last few years we have gathered that information and I shall be glad to furnish it to you.

[fol. 837] Q. I just have a few more questions here. What is the distance that gas is transported in the main transmission line from Sneed compressor station to Dana measuring station? A. 859.4 miles.

Q. From Sneed compressor station to the City of Detroit? A. Approximately 1200 miles.

[fol. 840] Q. Are you familiar with the company's practice with respect to letting contracts for construction and well drilling?

A. I am more familiar with the company's practice with respect to letting contracts for the construction of transmission facilities.

Q. Now, will you describe generally the routine or the practice in that regard?

A. Well, complete specifications are drawn up in the engineering department, maps are prepared and invitations to bid are sent out to not less than five, if five reputable contractors are available at the moment—

[fol. 841] Q. (Interposing) Ordinarily is it five or more or less?

A. Sometimes more but not ordinarily less, five or more. The contractors are usually given two weeks to four weeks to look over the rights-of-way, the problems involved in completing the construction and at a certain stipulated date they submit bids to the assistant secretary of the company, not to its engineering department.

The bids are opened by the assistant secretary and the contract is let.

Q. To the lowest bidder or, not to the lowest bidder usually?

A. If the lowest bidder is a reputable contractor and if the lowest bidder is not engaged in other work at the moment.

Q. If I may ask one more question with respect to your Exhibit 47, Mr. Burnham, referring you to line 4, Southern Michigan North Line, \$3,893,300. Is that line going to be constructed in 1941?

[fol. 842] A. I am glad you asked me that question. In my estimation it is now physically impossible to get that line completed in 1941 and the same applies to the item on line two. This is because of the delay in receiving pipe, so I should say, generally, that items shown on lines 2, 4 and 5 will run over into 1942.

Q. Is the gas delivered to the Interstate Gas Company for resale in Harrisonville, Missouri taken from the main pipe line system?

A. Our local area system, I am very certain.

Q. Well now, I think the record ought to be clear, Mr. Burnham, with respect to other such similar delivery.

Could you point out on your Schedule 2 other instances where gas is delivered to customers not from the main pipeline system of Panhandle Eastern?

A. Well, generally speaking, the customer receiving service from the local area system that is not getting gas out of the main line system was attached previous to the construction or completion of the main line system and if you will refer to the dates in the Column F you will get a very good idea of what customers received service from the local area system.

Q. Well do those customers never get any gas from the [fol. 843] main line?

A. Yes, indeed they do, and I testified in the hearing in September that on cold days it was necessary that we turn the main line gas into this local area system to reinforce the supplies of local gas and the day is fast approaching when local gas will probably be depleted to such an



extent that the great majority, I mean the greater part of this gas will be main line gas.

. . . . .

[fol. 844] By Mr. Lee:

. . . . .

[fol. 845] Q. What is the mileage of the Michigan Gas Transmission Company from Dana to Melvindale, the Detroit gate? A. Approximately 350 miles.

. . . . .

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[fol. 856] LEITH V. WATKINS, called as a witness on behalf of the Panhandle Eastern Pipe Line Company, being first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Wheat:

Q. State your name and business address, Mr. Watkins.

A. My name is Leith V. Watkins. My address is 90 Broad Street, New York City.

Q. Do you hold any position at this time with the Panhandle Eastern Pipe Line Company?

A. Yes, sir, I am secretary-controller of Panhandle Eastern Pipe Line Company and its subsidiary company, Illinois Natural Gas Company.

. . . . .

After completing high school, I entered Emory and Henry College at Emory, Virginia and remained there through my sophomore year. That was about 1910.

During the year 1911 I was a student at the Spencerian [fol. 857] Commercial School at Louisville, Kentucky where I took a course in accounting and finance. Almost constantly during my entire business career I have been a student of matters relating to specific and general accounting, operating and tax problems.

. . . . .

I am a member of the Controllers Institute of America, of the American Gas Association and several of its committees.

. . . . .

During the period from 1910 to 1926 I was a member of a staff of public accountants, a member of the staff of Clearing House Bank Examiners, staff auditor for corporations, officer of corporations and an instructor in advanced accounting in Y. M. C. A. night schools.

During the period from 1926 to 1931 I was a member of the staff in charge of the installation of operating and construction budgets of the General Auditor of Columbia Engineering and Management Corporation, assistant treasurer of Union Gas & Electric Company at Cincinnati, Ohio, and its associated companies.

During the period from 1931 to 1937, I have been assistant secretary, assistant treasurer and secretary and treasurer of Panhandle Eastern Pipe Line Company and its [fol. 858] subsidiary companies.

Also during a portion of that period from 1934 to 1937 I was secretary-treasurer of Columbia Oil & Gas Corporation and its subsidiary companies.

Q. From 1937 to date however, you have been secretary-controller of Panhandle Eastern Pipe Line Company and its subsidiaries during a portion of the time and its single subsidiary at this time. Is that true?

A. That is correct.

As secretary of Panhandle Eastern Pipe Line Company and Illinois Natural Gas Company I have complete responsibility to the board of directors and to the president of those companies for the duties generally associated with the secretaryship of a modern-day corporation.

As controller, instead of comptroller, of those companies, I am the chief accounting officer and, as such, I am responsible to the board of directors and to the president for all accounting matters, practices or policies and the wide variety of duties generally associated with and specifically assigned to the controller of a modern-day corporation.

[fol. 859] Q. Mr. Watkins, have you prepared for introduction in this proceeding an exhibit consisting of three pages headed "The Balance Sheets Per Books"?

A. Yes, I have prepared such an exhibit or have had it prepared under my supervision.

Q. And is the document which I now show you the document to which you refer? A. That is correct.

Q. And that was prepared under your supervision, was it? A. Yes, indeed!

Q. And do you believe it correctly shows what it purports to show? A. I do.

. . . . .

(Document Referred To Was Marked Exhibit No. 48 For Identification.)

Q. In preparing this document, containing certain balance sheets of the company, and also in preparing the income statement which will follow, have you generally [fol. 860] followed the forms prescribed by the Federal Power Commission in its uniform system of accounts for natural gas companies and also its forms for annual reports of such companies?

A. Yes, those forms have been generally followed, but I do not wish to have the fact that I have so followed those forms in making up these exhibits to be understood as a concurrence on my part or on the part of Panhandle Eastern Pipe Line Company and Illinois Natural Gas Company in the soundness, from an accounting standpoint, of certain of these forms or parts thereof.

. . . . .

Exhibit 48 for identification shows the assets and liabilities of Panhandle Eastern Pipe Line Company and subsidiary companies at December 31 each year, beginning with the year 1930, through the year 1940 and at June 30, 1941.

Q. Now, is it true that the assets covered by these balance sheets for each of these years are stated on page 1 of the exhibit and the liabilities for each of these respective years are stated on page 2 of the exhibit?

A. That is correct.

Q. So that by considering the asset column on page 1 for any particular year and comparing it with the liability column for that particular year on page 2, your complete

balance sheet for that particular year can be ascertained?  
[fol. 861] A. That is correct.

These assets, of course, are stated in this exhibit on the consolidated basis and have, therefore, been taken from the books and records of either Panhandle Eastern Pipe Line Company and whatever subsidiaries it owned at the dates for which the figures were respectively shown.

Q. Now, it is a fact, is it not, Mr. Watkins, that Panhandle Eastern Pipe Line Company did at one time own another corporation as a wholly owned subsidiary, which corporation is not now so owned?

A. As a matter of fact, it owned several other such corporations which corporations are not now subsidiaries.

Q. Yes, and is it a fact that the only subsidiary corporation now owned, wholly or in part, by Panhandle Eastern Pipe Line Company is Illinois Natural Gas Company?

A. That is true as of this date.

Q. As of this date. In this exhibit you have consolidated data from the books and records of both Panhandle Eastern Pipe Line Company and Illinois Natural Gas Company, have you not?

A. That is true, not only with respect to this exhibit, [fol. 862] but any other exhibits that this witness will offer.

Q. Yes. Now, without going into detail in respect to the items which are contained on Exhibit 48 for identification, I think that there are some items which might necessitate some slight discussion for a thorough understanding of their nature. For example, Mr. Watkins, will you state what the item headed "Other Investments" on line 3 of page 1 of Exhibit 48 for identification represents?

A. May I ask if that question is directed to the amount shown in Column F on line 3 of Exhibit No. 48?

Q. Yes.

A. Which is \$214,298.25 as of June 30, 1941?

Q. That is right.

Mr. Littman: You mean Column M or Column F?

The Witness: "M."

The Witness: This amount represented on June 30, 1941, an amount due Panhandle Eastern Pipe Line Company by

Southwest Kansas Oil & Gas Company and Saturn Oil & Gas Company on open account amounting to \$48,819.24—I beg your pardon, that represents four notes of equal amount dated January 6, 1936 of which one note is due each year during the years 1943 to 1946 and an open account due from the same companies amounting to \$165,479.01.

[fol. 863] Q. Making the total shown by you in Column M, line 3 of page 1?

A. That is correct.

Q. Is there any further explanation that you think should be made of that particular item of "Other Investments"?

A. I don't believe so, except that there might be some interest in the fact that as at the end of the year 1934 the amount shown as "Other Investments" in Column F on line 3 of Exhibit 48 was \$180,240.68, whereas at the end of the year 1935 the amount had been reduced to \$1.00. This change came about because of the reduction of investment of Panhandle Eastern Pipe Line Company's investment in capital stocks of two corporations dissolved during that year. The balance in this account rose at the [fol. 864] end of the year 1936 to the amount stated in Column H on line 3 or \$150,146.84 by the addition of the notes and accounts receivable, previously referred to by this witness as explanation of the balance of \$214,298.25 shown in Column M at June 30, 1941 on line 3 of Exhibit 48.

Q. Now, Mr. Watkins, what have you to say with respect to the item of "Special Deposits" in line 6 which I think might well be given some explanation?

A. Without refreshing my mind as to the balance at the end of each year, this account generally contains amounts placed on special deposits for some specific purpose, as an example the principal portion of the amount shown on line 6 in Column M of Exhibit No. 48, represents the balance of funds deposited with the company's corporate trustee, with Panhandle Eastern Pipe Line Company's corporate trustee for the redemption of its 4 percent bonds redeemed during the year 1941. The amount shown at the end of each of the prior periods represents similar transactions or transactions of a similar nature.

Q. The account varies from a high of something slightly under \$9,000,000 now to a low of \$660, does it not?

A. That is correct.

Q. Now looking down the page to line 10, "Accounts Receivable," have you any explanation which you desire to make in respect to that item?

[fol. 865] A. The balance shown as "Accounts Receivable" over the years covered by this statement simply represents in some degree of relationship the growth of the company's business.

Q. Now most of the other items on page 1 of Exhibit 48 are generally self-explanatory, are they not, Mr. Watkins? If you have any other items that you feel should be briefly explained, I wish you would do so.

A. Well, to the witness they seem self-explanatory.

Q. Yes, they so seem to be. Now, will you turn to page 2 of Exhibit 48 which is the page on which the liabilities for these respective years are shown? I draw your attention to line 6 entitled "Bonds" under the general heading "Long Term Debt" and also to line 7 under the same general heading, which is entitled "Miscellaneous Long Term Debt."

I would appreciate it if you would outline briefly what is disclosed on those two lines of page 2 in respect to the ups and downs of these two items.

A. The up and down of the two items referred to, shown on lines 6 and 7 of page 2 of Exhibit 48, is simply the result of the change in the portion of the company's financial structure represented by long-term debt during the years.

Q. For example, Mr. Watkins, I notice that the amount shown under the heading "Bonds" at the close of 1940 is \$22,500,000 and that at June 30, 1941 that amount is shown as \$18,250,000. Does that difference represent a portion of the refinancing operations carried on by the company early in this current year?

A. It does.



Q. And is the same true with respect to the increase shown between 1940 and June 30, 1941 in the other item, to-wit, "Miscellaneous Long-Term Debt"?

A. As to the principal portion of that change, yes.

Q. Now, I notice that that has risen from around \$30,000 to slightly over \$5,000,000. Is the \$5,000,000 represented by certain notes at this time?

A. That is correct.

Q. Yes. Now, without going into detail on various other items down through line 16, I should like to ask you with respect to line 16, which is headed "Taxes Accrued," what is represented by the item shown in Column M for June 30, 1941 in line 16? In that connection, please feel free to consult the note shown on page 3 of this exhibit in connection with your explanation.

[fol. 867] A. The amount of \$3,176,774.41 shown on line 16, Column M, page 2 of Exhibit 48, represents the total taxes accrued by Panhandle Eastern Pipe Line Company and subsidiary companies as of June 30, 1941.

Q. That includes both Federal and State taxes, does it?

A. It includes both Federal and State taxes and the Federal income taxes and excess profit taxes have been computed without regard to special deductions which result from the refinancing consummated during the early part of this year and without making provision for possible increases in rates or otherwise resulting from the Revenue Act of 1941.

Q. Will you please give the detail of that item?

A. The detail of that item is as follows: Ad valorem taxes for the State of Texas for the year 1941, \$17,400; for the State of Oklahoma during the year 1941, \$6,000; for the State of Kansas during the year 1941, \$132,000; for the State of Missouri during the year 1940-41, \$97,478.66; for the State of Missouri during the years 1941-42, \$8,400; for the State of Illinois during the year 1941, \$42,600.

For gross production taxes in the State of Texas, \$2,707.24. For the conservation assessment made by the [fol. 868] State of Kansas, \$180.19. For the Federal capital stock taxes for the year 1940-41, \$68,520. For capital stock taxes for the State of Illinois during the year 1941, \$2,400. For Federal excise for old age benefits, \$2,588.87.

For Federal excise for unemployment insurance, \$1,597.54. Unemployment compensation for the State of Texas, \$122.74; Kansas, \$2,363.94; Missouri, \$3,035.56; Illinois, \$1,126.08; New York, \$122.24.

For State income taxes for the year 1939, \$15,418.21; for State income taxes during the year 1940, \$31,625.49; for State income during the year 1941—\$24,000; for Federal income taxes during the year 1938, \$24,242.22. For Federal income taxes during the year 1939, \$14,883.13. For Federal income taxes during the year 1940, \$747,962.25. For Federal income taxes during the year 1941, \$934,000. For Federal excess profits taxes during the year 1940, \$480,000. For Federal excess profits taxes during the year 1941, \$516,000.

Q. Now, the total of those figures is the total shown in Column M, line 16, page 2, is it?

A. That is correct.

Q. That represents, does it, the accruals made on the books of these two companies, consolidated during the first six months of 1941, or just how would that better be [fol. 869] stated?

A. Well, not necessarily during the first six months of 1941—

Q. (Interposing) It is the balance shown on the books as of June 30, 1941, is it not?

A. That is correct, because some of these taxes cover a period other than the year 1941.

Q. How does that come about, Mr. Watkins?

A. Without being facetious, by reason of the Acts of the State Legislatures, principally.

Mr. Wheat: Mr. Examiner, I offer Exhibit 48 for identification in evidence.

[fol. 871] Q. Now, Mr. Watkins, have you also prepared a document entitled "Income Statement Per Books, Period from April 1, 1932 to December 31, 1941"?

A. I have.

Q. And is the document consisting of two sheets which I now show you the study which you have just mentioned?

A. It is.

(The Document Referred to was Marked Exhibit No. 49 for Identification.)

Q. Was the data shown on this exhibit prepared by you or under your direction?

A. Under my direction.

Q. And do you believe that the contents of the data shown on Exhibit 49 for identification correctly show what they purport to show?

[fol. 872] A. I do.

Q. Now turning to Exhibit 49 for identification, turning now to Schedule 1, which is page 1 of Exhibit 49 for identification; I should like to ask you how you obtained the figures shown in Column M, which is 1941, January 1 to December 31.

A. The figures shown in Column M for the year 1941 represent the actual results of operation for the first six months of the year 1941, plus an estimate of the probable results of operation for the last six months of that year.

Q. May I ask whether that is true of any of the other figures shown in the other columns of this exhibit, in other words, are any of the other figures in Columns B to L, inclusive, estimated or are they actual?

A. They are actual.

Q. And only then in the instance of 1941, as shown on Note 1 on Schedule 1, are there estimated figures included?

A. That is correct.

Q. Now, will you look at line 3 under the heading "Income" and tell me what is included under the item "Gas"?

A. All the revenue received by Panhandle Eastern Pipe Line Company and its subsidiary company, Illinois Natural Gas Company, or any other subsidiary companies included in prior years is included in the item of "Gas" shown on line 3 in the various columns of Exhibit 49.

Q. What do you mean by the item of "Pipe Line Rentals" in line 5?

A. Formerly Panhandle Eastern Pipe Line Company [fol. 874] transported gas for a period of a few years for another company, the transportation of the gas, as I re-

call, was for a distance of about 100 miles. The contract expired or the arrangement ceased during the year 1936 and there has been no such income since that year.

Q. Will you direct your attention to lines 19 and 20 of page 1 of Schedule 1, Exhibit 49, which are respectively headed "Federal Income" and "Federal Excess Profits" under the center heading of "Taxes" and particularly the items shown in Column M and tell us what those contain?

A. The amounts shown in Column M as accrual for Federal income and Federal excess profit taxes for the year 1941 have been computed without regard to special deductions resulting from the refinancing consummated during February but have been adjusted for increase in rates and other changes as a result of the Revenue Act of 1941.

Q. Now, with respect to those special deductions you just mentioned, have you made any computation of those amounts?

A. Yes. Such computations, however, have not been entirely checked with the new Revenue Act because of the newness of it and, subject to that, amount to approximately \$900,000.

Q. May I ask, Mr. Watkins, how you, as controller of this company, plan to treat that item and give your reasons?

[fol. 875] A. As controller of the company, it is my expectation to recommend that the company continue to accrue Federal taxes for the year 1941 without referring to the deduction resulting from the refinancing consummated this year but before the end of the year and before the company's books are closed to transfer from the accrued tax account to the unamortized debt discount and expense account the actual amount determined on the basis of the 1941 Revenue Act that does represent the so-called saving as a result of the refinancing and thereby distribute the so-called saving over the life of the securities which gave rise to it.

Q. You believe that that is a proper accounting method for the treatment of this item?

A. I most certainly do.

Q. And it is true, is it not, that this item is a special item resulting in this particular year and not expected in other years and solely coming about by reason of the re-

financing operations which were consummated early in the year, 1941?

A. That is correct, however, there was a similar item in a prior year.

Q. There have been other items of that nature or at least one other item during the history of this company arising also from a refinancing operation?

[fol. 876] A. That is correct.

Q. But unless there were some such refinancing operation, no such particular type of special deduction would result from the normal operations of this company. Is that correct?

A. That is correct.

May the witness make one explanation before we leave this?

Q. Yes, please.

A. The revenues from gas operation shown on line 3 in the various columns of this exhibit do not include the total amount paid by certain of the companies to which Panhandle Eastern sells gas. As a result of certain contracts it has with Michigan Gas Transmission Corporation providing for the acceptance by that corporation and the redelivery by it to certain of Panhandle Eastern's customers, this organization has recorded as income only that part of the amount paid by those customers which it actually received.

Q. Well, do I understand from that, Mr. Watkins, that Michigan Gas Transmission Company receives payment from these corporations which you have mentioned and transmits to Panhandle Eastern Pipe Line Company an amount somewhat less than that, the difference taking care of the contractual obligation with respect to payment for transmission of the gas?

[fol. 877] A. That is correct.

[fol. 879] Q. What is the item "Interest Charged to Construction" in line 33 which I note is in each instance a red figure?

A. These amounts represent the interest which Panhandle Eastern Pipe Line Company or its subsidiary companies have charged to construction projects and capitalized during the years for which such amounts are shown.

Q. Why, Mr. Watkins, do you start your first column of figures, to wit, Column B, on April 1, 1932, rather than January 1, 1932?

A. The construction of our facilities occurred during the years 1930 and 1931 and continued to about March 31, 1932. The facilities as they then existed were placed in practical operation at that date. Prior to April 1, 1932, all costs were capitalized. However, during a portion of this period the facilities were operated to some minor degree, the result of such operations, either a loss or a gain, was likewise capitalized, so that in effect the entire cost, from whatever source, of the facilities constructed by these companies prior to March 31, 1932, was capitalized.

Q. That fact leads to the result, does it not, that your average figures shown in Column L are for eight and three-quarters years rather than for six or nine years?

A. Yes, that is correct.

Q. And your cumulative total shown in Column K [fol. 880] covers the eight and three-quarters year period, does it not? A. That is correct.

Q. Will you turn to Schedule 2, which is page 2, Exhibit 49? I note that this page is headed "Net Income Adjusted for Depreciation (Including Amortization) computed at 3 percent for a period from April 1, 1932, to December 31, 1941." May I preliminarily ask you whether it is not true that in line 3 where, under the heading "Item" is shown depreciation per Schedule 1, line 9 that figure "9" should be replaced by "10"?

A. Yes, that is correct.

[fol. 881] Now, Mr. Watkins, will you state what you have shown on this page, and then will you state how you happen to use a 3 per cent figure in connection with your items contained on line 6 of Schedule 2?

A. This exhibit has been prepared with the view of restating the net income shown on line 35 of Schedule 1 of Exhibit 49 to give effect throughout the years of a provision for depreciation including amortization computed at 3 per cent rather than the basis used by the company per books during those years.



Q. Mr. Watkins, would it be fair to say that the 3 percent item is an approximation of the recent charges made by the company?

A. Not only fair but absolutely correct to so state.

Q. I take it you are not suggesting that this company or any of its subsidiaries were required to set up 3 percent in the earlier years for any reason, are you? A. Oh, no.

Q. You are showing what would have occurred had the [fol. 882] company so handled its records?

A. Simply that.

Q. And what happens to the net income after such an adjustment is made?

A. As to the cumulative total?

Q. Yes.

A. The average?

Q. As to the cumulative total.

A. The cumulative total shown on both Schedule 1 and Schedule 2 representing net income for the period from April 1, 1932, to December 31, 1940, would by this adjustment become \$10,070,700.16 rather than \$13,552,607.22 as shown on line 35 in Column K on Schedule 1.

Q. Now, will you state what difference such an adjustment would make on the average 1932 to 1940, eight and three-quarters years figures?

A. It would make a difference of approximately \$400,000 per year.

Q. On the average? A. On the average.

Q. Thank you. Is there any further explanation that you desire to give with respect to Exhibit 49?

A. There is none.

Mr. Littman: May I ask a question at this point?

Mr. Wheat: Surely.

[fol. 883] Mr. Littman: Mr. Watkins, will you please explain what you include within the meaning of the term "amortization" as used on Schedule 2 of Exhibit 49, that is, in the heading of this schedule?

The Witness: Any provision for the return to a corporation engaged in the exploitation of a wasting asset for its assets consumed in operations must necessarily include factors representing actual deterioration, functional depreciation and the amortization of the corpora-

tion's investment in its facilities over the life of the product which it is exploiting; for which reason it has been the general practice of our corporation to give consideration to and make provision for the possibility that it may become necessary to cease operation before our facilities are actually entirely worn out.

Mr. Littman: Now, what facilities do you mean?

The Witness: All of our facilities.

Mr. Littman: Including the main transmission line?

The Witness: Surely.

Mr. Littman: Thank you.

Trial Examiner: Was it stated in the record what accounting method applied to the reserve for depreciation?

[fol. 884] The Witness: This matter might better be covered by reference to a registration statement entitled "Registration Statement No. 2-2867 on Securities and Exchange Commission's Form A-1, Effective March 29, 1937, Filed by Panhandle Eastern Pipe Line Company" where on page No. 75 in certain notes accompanying and made a part of the income and surplus statements, included in that statement the following appears:

"The Issuer, under the retirement method of accounting, has provided for current retirements and renewals, and in addition, is providing a reserve for future retirements and renewals. This method does not contemplate a full provision for accrued depreciation as determined by the age and estimated service life of the properties. Annual provisions on the foregoing basis have been computed on the average balance in property account (exclusive of undistributed legal expenditures, interest and taxes during construction, and so forth) at the annual rate of one-half of one per cent for the year 1931, one percent for the year 1932, and one and one-half percent per annum for 1933, 1934 and 1935. In 1936 the provision was computed at the rate of one and one-half percent per annum on the average balance in property account, including undistributed legal expenditures, interest and taxes during

construction, and so forth, on all property exclusive of production system property acquired in liquidation of Texas-Interstate Pipe Line Company on October 31, 1936.

[fol. 885] "Provision for retirements, renewals, depreciation and amortization on this production system property has been computed since acquisition at the rates used by the predecessor subsidiary company, namely, depletion of producing leaseholds at the rate of three mills per m. c. f. of gas produced and amortization of the cost of non-producing leaseholds, drilling costs, well equipment and other production system property at 6 per cent per annum.

"In addition, the Issuer made a provision of \$30,108.65 for retirements for the period from September 1, 1930, to December 31, 1930."

By Mr. Wheat:

Q. That is the end of the quotation, is it, Mr. Watkins?

A. That is correct.

Q. Is there any further statement that you desire to read in that connection?

A. In Registration No. 2-4118 of Securities and Exchange Commission Form A-2, effective July 29, 1939, on page S-7 thereof, there is shown a further note with respect to the income account attached to and made a part of the consolidated income account in such statement which reads, in part, as follows:

"The registrant and its subsidiaries have provided for retirements, renewals, depletion and amortization (other than amortization of gas sales and purchase contracts) in [fol. 886] accordance with resolutions of the board of directors. Specific rates based upon the age and estimated life of the properties were not used in determining the amounts.

"The provision made for the year 1936 is not represented to be a reasonable provision for depreciation as determined by the age and estimated service life of the property. The registrant's Certificate of Incorporation, as amended, provides substantially that no dividends on the common stock or any participating dividends on preferred and common stocks may be paid except out of net surplus earned subsequent to December 31, 1935, remain-

ing after there shall have been deducted therefrom as provisions for renewals, retirements, depletion and amortization (other than amortization of gas sales and purchase contracts) an aggregate accrual equal to one-third of one percent per month (on monthly balances) of the consolidated tangible property account of the registrant and its subsidiaries; the provisions for renewals, retirements, depletion and amortization as computed in accordance with the registrant's certificate of incorporation would have amounted to \$1,715,241.58, \$1,909,966.65, \$2,337,597.71 and \$979,449.83 for the years 1936, '37 and '38 and the five months ended May 31, 1939, respectively. The amounts claimed by the registrant and its subsidiaries for depreciation for Federal income tax purposes are larger than the provision for retirements and renewals as set forth in [fol. 887] the income account."

That ends the quotation with respect to the matter contained in Registration No. 2-4118.

In Registration 2-4579 on Form A-2 of the Securities and Exchange Commission, effective January 29, 1941, there is a further statement with respect to this matter on page S-7 of which the following is a part:

"The management has been informed by P. McDonald Biddison, an independent consulting engineer of Dallas, Texas, that in his opinion the annual amounts provided for depreciation, depletion and amortization were reasonable for this purpose.

"The provisions for the years 1938, 1939 and 1940 were equal to 2.98 percent, 3.20 percent and 3.16 percent of consolidated property, plant and equipment accounts at the beginning of the respective years."

In a listing application dated February 28, 1941, filed with the New York Stock Exchange with respect to Panhandle Eastern Pipe Line Company's first mortgage and first lien 3 per cent bonds, Series B, due November 1, 1960, under the heading "Depreciation Policy" the following appears:

"The formulae consistently used by the company and its subsidiary companies beginning with the year 1937 to develop an amount to be recommended to the board of di-

rectors as a proper provision for depreciation, depletion [fol. 888] and amortization gives consideration to the "wasting asset" theory and provides depletion on operated leaseholds on the basis of units of gas withdrawn, amortization of investment in unoperated land rights by the use of a composite life of ten years for such land rights, amortization of gas sales and purchase contracts at a specific monthly rate as provided in the company's certificate of incorporation and in amounts to conform to the contract period in certain instances and an amount for the other transmission system properties determined by its board of directors which recognizes amortization in addition to a composite rate based on the age and estimated life of the properties. The propriety of the aggregate annual provision, as well as the reasonableness of the total reserves provided to date has been substantiated by an opinion from an independent consulting engineer. Unless required to do otherwise by some regulatory authority of competent jurisdiction, the company expects to continue this policy."

[fol. 889] Trial Examiner: Is the straight line method apparently followed by the excerpts you have read?

The Witness: It is followed.

Trial Examiner: It is followed at the present time?

The Witness: That is correct.

Trial Examiner: And when did that begin?

The Witness: We have never used anything else.

Trial Examiner: That is from the beginning?

The Witness: That is right.

Trial Examiner: And your answer to the question originally stated is that you employ the straight-line method of accounting for depreciation?

The Witness: As to the method, that is correct, but as to the amount, that varies over the several years.

Mr. Wheat: But as to the amount, that varies over the several years?

The Witness: Yes, indeed.

[fol. 890] Q. Mr. Watkins, have you also prepared a document of two pages headed "earned surplus—per books period from commencement of operations to June 30, 1941"? A. I have.

Q. Is the document I now show you the one which I have just mentioned? A. It is.

(Document No. 50 marked for identification.)

Q. Mr. Watkins, was exhibit 50 for identification prepared by you, or under your direction?

[fol. 891] A. Prepared under my direction.

Q. And does it correctly show what it purports to show, in your opinion? A. It does.

This exhibit shows an analysis of the earned surplus account per the books of Panhandle Eastern Pipe Line Company and subsidiary companies at December 31, 1930, at each December 31, thereafter up to and including the year 1941, and at June 30, 1941.

Both the credits during the year, the balance at the beginning of the year, and the total credits thus created are shown on page 1 of exhibit 50.

Q. And are the debits and the earned surplus figures as of the end of the year shown on page 2 of that exhibit?

A. They are.

Q. Now, will you turn to page 2 of the exhibit.

[fol. 892] What is meant by the items shown on lines 10 and 11 entitled, "Reduction of Interest Capitalized by Amount of Interest earned during 1930" preceding the item on column (C) under the year 1931?

A. That item, which is \$18,334.42, as well as the item following the explanation shown on lines 14, 15 and 16, amounting to \$53,551.88, shown in column (D), both repre-



sent amounts capitalized by the companies at the end of the construction period and prior to the placing of the facilities—these companies' facilities—in practical operation at March 31, 1932.

Mr. Watkins, have you also prepared a single page computation showing—entitled "Capital Surplus Per Books, Period from September 1, 1930 to June 30, 1941"

Such an exhibit has been prepared under my direct supervision.

Q. And is the document I now show you the exhibit you have just mentioned? A. It is.

[fol. 893] (Document referred to was marked Exhibit 51 for identification.)

Q. Does Exhibit 51 for identification correctly show what it purports to show, in your opinion, Mr. Watkins?

A. It does.

Q. Let me ask you in respect to the item covered under lines 11, 12 and 13, which same amount appears opposite lines 22 and 23.

What does that item represent and what brought about the reduction shown in the balance at the end of the year for 1931 in column (C) under the balance shown in column (B) which is the period September 1, 1930 to December 31, 1930?

If there is some action on the part of the Board of Directors of the Company you would like to read in connection with that, please feel free to do so.

A. If the witness may suggest, it might be more appropriate to explain that item in connection with the next exhibit.

Q. I would be very happy to have you do so. The next exhibit is the exhibit entitled, "Gas Plant"?

A. That is correct.

Q. We will proceed in that manner, then, and ask for that explanation at that time.

[fol. 894] I would like to ask you, however, on exhibit 51, to explain the items in column (H) and state what happened with respect to capital surplus between the close of the year 1935, shown in column (G), and the close of the year 1936, shown in column (H)?

A. As will be shown by lines 3, 4 and 5 in column (B), Panhandle Eastern Pipe Line Company came into possession of surplus aggregating \$19,335,867.47, as of August 31, 1930, without cost to it.

In the year 1936, the items to which your question was directed, representing a residue of \$19,000,000 odd the witness referred to, were disposed of by action of the Board of Directors, through the creating of special reserves in that year applicable to the earned surplus deficit of the company at December 31, 1935, amounting to \$1,247,365.50, and a special reserve to cover the loss on investments in subsidiary companies, in two subsidiary companies as of December 31, 1935, amounting to \$2,232,009.04.

There was also assigned to the common stock account \$15,017,300 so that the entire number of shares of common stock outstanding at that time would be deemed to have been issued at \$25.00 a share.

These appropriations, together with a charge to capital surplus of \$39,902.48 representing an account due from Missouri-Kansas Pipe Line Company written off during [fol. 895] the year 1933, disposed of \$18,000,000—

Q. (Interposing) You mean 1936, do you not?

A. Correct, disposed of 18,536,577.02 of the remaining capital surplus of \$19,335,867.47 created on August 31, 1941, as previously explained.

Q. You mean 1931? A. I am sorry, 1930.

Q. Now, Mr. Watkins, that left, at the close of 1936 as capital surplus on the books of the company, the item of \$46,364.54, did it not? A. That is correct.

Q. I note that item does not appear, nor any other appears as capital surplus per books as from January 1 to June 30, 1941. Will you state what happened to the \$46,000 odd item which I just mentioned?

A. During the year 1939, the item amounting to \$46,364.54 was transferred to the reserve for depreciation

in conformity with the authorization by the company's board of directors.

Q. Now, have you, Mr. Watkins, a statement consisting of two pages headed, "Gas Plant"?

A. Such a statement has been prepared under my direction.

[fol. 896] (Document marked exhibit 52 for identification.)

Q. And does exhibit 52 for identification, in your opinion, correctly state what it purports to show?

A. It does.

Q. Will you now explain exhibit No. 52; the items which I mentioned to you in my interrogation under exhibit 51 which you stated you thought had better be explained under this item?

A. By reference to page 2 of exhibit 52, particularly in columns (b) and (c) on line 40; it will be noted that the balance in the account under the classification, "Gas Sales and Purchase Contracts" in those years is considerably greater than that under the same caption on line 40 in column (d).

Q. For 1932?

A. For the year 1932. The reason for this change came about in this manner:

At a special meeting of the Board of Directors of Panhandle Eastern Pipe Line Company held on September [fol. 897] 3rd, 1930, the following preambles and resolutions were adopted and I quote:

"Whereas, Messrs. Brockaw, Dixon, Garner and McKee, geologists and petroleum engineers, have given to this Company a letter setting forth their opinion that this company's present and available sales contracts are of a present fair market value in excess of eleven million (\$11,000,000) dollars, which letter is in substance as follows:

"Based on our examination of the leaseholds for natural gas acreage, survey of the natural gas transmission line now under construction from the Panhandle area of Texas, Oklahoma, and Kansas to Indiana, survey of the

markets of the present non-competitive territory to be served by this line, analysis of the contracts signed and under negotiation for gas and of contracts available, we are of the opinion that such present and available sales contracts are of a present fair market value in excess of \$11,000,000.

Now, Therefore, be it

Resolved that the officers of the company be, and are hereby authorized, empowered, and directed to set up the company's present and available sales contracts upon its books at a value of Eleven Million (\$11,000,000) Dollars."

As a result of that action by the Board of Directors, an entry was made on the books of Panhandle Eastern Pipe Line Company represented by Journal voucher No. [fol. 898] J-41 during the month of September, 1930, a result of which was a charge to a sub-classification, "Gas Sales and Purchase Contracts", in the property plant and equipment account of \$10,357,713.70, and a corresponding credit to the account, "Surplus Arising from Valuation of Gas Contracts".

This \$10,357,713.70 taken together with an amount previously appearing on the company's books of \$642,286.30, represented the \$11,000,000 authorized by the Board of Directors in preambles and resolutions quoted from the meeting of the board held on September 3, 1930.

At a meeting of the Board of Directors of Panhandle Eastern Pipe Line Company held on March 29, 1932, the following preambles and resolutions were adopted:

"Whereas the Board of Directors of Panhandle Eastern Pipe Line Company, at its meeting held September 3, 1930, pursuant to an appraisal by Brokaw, Dixon, Garner and McKee, adopted a resolution determining the value of the gas sales and purchase contracts owned by this Company to be \$11,000,000 and ordered the value of said contracts to be so entered on the books of account of the company;

"Whereas, pursuant to said resolution, an entry was made on the books of account of the Company charging 'Gas Sales and Purchase Contracts' and crediting 'Surplus Valuation of Gas Contracts' with the sum of \$10,357,713.70; and

[fol. 899] "Whereas, in the opinion of this Board, it is desirable to reverse said entry in order that the books of account of this Company shall be as fully as possible in accord with sound and conservative accounting practice;

"Now, Therefore, be it Resolved that the Treasurer of the Panhandle Eastern Pipe Line Company be and hereby is directed to enter on the books of account of the Company a credit of \$10,357,713.70 to the account entitled 'Gas Sales and Purchase Contracts' and a debit in the same amount to the account entitled 'Surplus-Valuation of Gas Contracts'; and

"Resolved that the Treasurer of said Company be and hereby is directed to investigate and report to this Board his recommendations with respect to the balance remaining in said account 'Gas Sales and Purchase Contracts' after the entry of the credit hereinabove ordered."

As a result of this action by the board of directors, journal entry No. C-517 made in the month of March, 1932, charged account No. 191, "Capital Surplus Arising From Valuation of Gas Contracts", and credited Account No. 3, "Gas Sales and Purchase Contracts", with the amount of \$10,357,713.70, so that the explanations of the amount just quoted appearing on both lines, 12, and on 23 of exhibit No. 51, as well as the reduction in the classification on page 2 of exhibit No. 52 on line 40 in the year 1932, column (d) came about.

[fol. 900] By Mr. Wheat:

Q. All right.

What is meant by the terms "drilled" and "not drilled" in lines 10 and 12?

A. The amounts shown in columns (B) to (M) exclusive on exhibit 52, in lines 10 and 12, represent the cost per the company's books of its gas leaseholds, segregated as to those leaseholds upon which there are wells drilled, or by virtue of conservation orders or practices followed by the companies, have been combined into production units as well as the cost per the company's records of such leaseholds upon which there are no wells

drilled and as to which none have been included in conservation or drilling units.

[fol. 902] Q. Now, will you turn to page 2 of exhibit 52, and tell us whether it is a fact that the undistributed construction expenditures shown under lines 24 to 35 of that page, were distributed during the year, 1937 to the respective accounts to which they might apply?

A. They were.

[fol. 903] Q. Yes.

Will you direct your attention to lines 43 and 44 of page 2, headed, "Other gas sales and purchase contracts". Of the items which are represented under that heading, have they any relation to the items of "Gas Sales and Purchase Contracts" covered under line 40?

A. The amounts shown on lines 42, in columns (D) to (M) inclusive, on this page, represent at the end of each respective year, the accumulated balance in an account created for amortization of the amount shown on line 40 of this same exhibit.

The amounts shown on line 44 in columns (H) to (M), inclusive of this exhibit, have no relation whatever to the amounts stated either on lines 40 or 42.

[fol. 904] Mr. Watkins, referring to page 1 of exhibit 52, where are the field lines, or gathering lines included on that page? I do not see them listed there and I wondered where you included them.

The Witness: Prior to the advent of the Uniform System of Accounts adopted by this Commission, neither Panhandle Eastern Pipe Line Company, nor any of its subsidiaries considered that they had investments in field lines.

Our lines are of such size that for operating and internal use, they seem to be transporting gas directly from the well mouth to the customer.

Our work of reclassification of accounts to conform to the uniform system of accounts has not yet been com-



pleted, so that it remains for us to make a separation of some sort.

Mr. Littman: I take it from your answer that the field lines and the gathering lines will probably be included under the heading of "mains" shown in line 37 on page 1 of exhibit 52?

The Witness: That is correct.

Mr. Littman: And the rights-of-way would probably be included in line 31, "land"—I mean 32, "land rights".

[fol. 905] The Witness: In the separation, that is also required.

Mr. Littman: Rather than in the production plant accounts?

The Witness: That is correct.

Mr. Littman: Referring to page 2, Mr. Watkins, I note that with respect to undistributed construction expenditures, to-wit:

"Engineering and Superintendence during Construction",

"Law Expenditures During Construction",

"Interest During Construction",

"Taxes During Construction", and

"Miscellaneous Construction Expenses — Expenditures" shown in lines 26 to 35, inclusive, on page 2 of exhibit 52. I note that there are no figures shown for the years 1937, 1938, 1939, 1940 or 1941.

Will you please explain how that comes about?

The Witness: In the years 1937, 1938, 1939, and 1940 to the extent there were any such costs, they were distributed directly to the respective work on which such cost was incurred.

Mr. Littman: In other words, you don't mean to infer there was none incurred, but they were not separately shown on the books as in previous years; is that right?

The Witness: That is correct.

Mr. Littman: In other words, whatever was incurred in that respect, that is, through 1937 and thereafter, was distributed among the various accounts?

[fol. 906] The Witness: In those years.

Mr. Littman: And the balances in 1936 were so distributed?

The Witness: There was a general distribution made in the year 1937 of the balances of these amounts accumulated up to that time.

Subsequent to that distribution, any such cost incurred was distributed customarily in the year in which it was incurred if it was not distributed directly to the job as the work was performed.

Q. Now, Mr. Watkins, have you also prepared a statement consisting of two pages, entitled, "Statement of Dividends, Paid on Class 'A' and Class 'B' Preferred Stocks from Beginning to September 1, 1941"?

A. Such a statement has been prepared under my supervision.

[fol. 907] (Document Referred To Marked Exhibit No. 53 For Identification.)

Q. Mr. Watkins, does Exhibit No. 53 for identification correctly purport to show what is your opinion?

A. In my opinion, it does.

Q. And what is the source of the data, the books of the company?

A. That is correct.

Q. Without asking many questions about this exhibit, let me just ask you whether this participation shown in connection with the dividends under column (D) involves both the common and preferred stocks?

A. As to this particular exhibit, it involves only the participation on the class A preferred stock. There will be a further exhibit showing the amount of such participation on the common stock, but it does include participation in both classes.

Q. How are these participations based?

A. When in any year dividends at the stipulated rate have been paid on the company's preferred stocks and dividends aggregating \$1.50 per share have been paid on the common stock, this company's common stock and class [fol. 908] "A" preferred stock participate in further dividends in that year on the basis of 25 percent of such dividends to the Class "A" preferred stock.

Trial Examiner: From your exhibit 48, it appears you had no preferred stock prior to 1936.

By Mr. Wheat:

Q. May I ask the witness the history of the preferred stock of this company?

A. As shown by page 2 of exhibit 42, on line 3, in column 8, the preferred stock to which reference has just been made, came into existence in the year 1936.

Trial Examiner: You said exhibit 42. I believe you meant exhibit 48, did you not?

The Witness: That is correct. The witness believes there was a slight amount of preferred stock in the very early history of the company, but has no specific information at this time with respect to the details of that stock.

By Mr. Wheat:

Q. Then, the answer to the Examiner's question is that the preferred stock which is mentioned on your exhibit No. 53, and which is now outstanding, is stock which came into existence during the year 1936?

A. That is correct.

[fol. 909] Trial Examiner: So that your phrase used on the proposed exhibit 53, "from beginning to September 1941" should be modified to state, "from 1936 and thereafter"?

Mr. Wheat: Yes, I think that understanding may be had.

Q. Have you also prepared a single page statement entitled, "Statement of dividends paid on Common Stock from Beginning to September 1, 1941"?

A. Such a statement has been prepared under my supervision.

[fol. 910] Q. And does it, in your opinion, correctly show what it purports to show?

A. It does.

(Document Referred To Was Marked Exhibit No. 54 For Identification.)

Q. Mr. Watkins, the explanation you have already made with respect to participating dividends as between common and Class "A" Preferred Stockholders explains the items under participating on exhibit 54, does it not?

A. In column (C).

Q. Let me ask you what is meant by note—(1) in line 17 to line 21 on exhibit No. 54.

A. If the witness' memory is correct, during the early part of this year, the company had a registration statement pending with the Securities and Exchange Commission in connection with which some question arose as to whether or not by reason of the ownership of Central Distributing Company, a wholly-owned subsidiary, which company distributed natural gas in the States of Missouri and Kansas, complications with respect to whether or not the [fol. 911] company was a gas utility under purview of the Natural Gas Act might arise.

In order to clear the slate of any such complications or possibility, the capital stock of the subsidiary was increased so that it represented an equal number of shares of stock as there were outstanding of Panhandle Eastern Pipe Line Company's common stock and the Board of Directors declared a dividend payable in shares of this subsidiary on the basis of one share of the subsidiary stock for each share of Panhandle Eastern Common Stock so held.

As a result of this declaration, the concurrent charge to "Earned Surplus" of \$399,094.14 was made.

This amount represented the net asset-value of subsidiaries according to its own books.

Q. Mr. Watkins, you said something about the Natural Gas Act in your previous answer—you meant the Holding Company Act, did you not?

A. Certainly.

Q. Thank you.

Now, Mr. Watkins, have you also prepared a statement consisting of a single lengthy page entitled "Statement [fol. 912] Showing Comparison of Sales and Revenue, Principal Industrial Customers, Years 1939, 1940 and 1941"?

A. Such a statement has been prepared under my supervision.

Q. Does the document I now show you, is that the statement to which you just referred?

A. It is.

Q. Does it, in your opinion correctly show what it purports to show?

A. It does.

(Document Referred To Was Marked Exhibit No. 55 For Identification.)

Q. Mr. Watkins, in connection with exhibit 55 for identification, how did you select or have selected the various customers listed in column (A)?

A. The customers included in column (A) are the customers whose annual purchases from Panhandle Eastern Pipe Line Company, or its wholly owned subsidiary, Illinois Natural Gas Company, or from the organization to whom Panhandle Eastern Pipe Line sold gas for resale to such organization—

[fol. 913] Q. You mean to such customers?

A. To such customers, in excess of \$20,000 per annum.

You will note that in column (C) most of the customers are indirect customers which accounts for their having been included in this schedule.

Q. I note that you have here data for 1941, the totals shown for 1941 are the totals of the columns covering 6 months' actual and 6 months' estimated, are they not?

A. That is correct.

Q. I note that in the last column, a rather large increase in both revenue and MCF sales is shown for the year 1941 over the year 1939.

Would you say that any large proportion of that increase is probably due to defense operations?

A. It would be the witness' judgment that the entire amount, or possibly more would be directly due to defense operations.

Q. How do you reach that conclusion?

A. As the witness previously stated, the customers included in this exhibit are those whose annual purchases are in excess of \$20,000 per customer.

[fol. 914] Unquestionably, out of the great number of other customers both direct and indirect, much of their purchases were a direct result of the defense activity.

Furthermore, it will be noted that in columns (O) and (Q), there are several amounts which represent decreases rather than increases.

That would have a tendency to increase the \$892,000 figure shown in column (Q) on line 40.

Q. I believe it is self-explanatory.

Now, Mr. Watkins, have you also prepared a statement, a one-page document headed, "Statement of Gas Produced From April 1, 1932 to June 30, 1941"?

A. Such a statement has been prepared under my supervision.

Q. And is the document I now show you the one to which you have just referred?

A. It is.

Q. Does it correctly show what it purports to show in your opinion?

A. It is my opinion that it does.

[fol. 915] (Document Marked Exhibit No. 56 For Identification.)



Q. Now, Mr. Watkins, referring to Exhibit 56 for identification, the data which you have included on this exhibit is from the companies' records, is it not?

A. It is.

Q. And why did you use only three-quarters of a year in 1932?

For the same reasons as you have explained on another exhibit?

A. That is correct.

Q. The items covered under column (D) include the so-called "Local Area", is that correct?

A. Yes, sir.

Q. Is there anything else you feel should be explained with reference to exhibit 56?

A. Column (B) is headed Amarillo field. Really that refers to the Panhandle field.

Q. Yes.

I think wherever that might appear in this exhibit, and in the next exhibit which I will show you, it may be understood that refers to the Panhandle field of Texas?

A. That is correct.

[fol. 916] Q. Have you also prepared a document, 1-page document, entitled "Statement of Gas Purchased, Period from April 1, 1932 to June 30, 1941"?

A. I have.

Q. Is the document I now show you the one you just referred to?

A. It is.

Q. And does it correctly show what it purports to show?

A. It does, in my opinion.

(Document Marked Exhibit No. 57 For Identification.)

[fol. 917] Q. The data shown on exhibit No. 57 was obtained from the companies' records, was it not?

A. It was obtained from the companies' records under my supervision.

Q. Have you also prepared, Mr. Watkins, a document of several pages, entitled, "Statement of Gas Revenue Period from April 1, 1932 to June 30, 1941"?

A. Such a statement has been prepared under my supervision.

Q. And is the document which I show you the document to which you have just referred?

A. It is.

Q. Does it, in your opinion, correctly show what it purports to show?

A. It does.

(Document Marked Exhibit No. 58 For Identification.)

[fol. 918] Q. Mr. Watkins, does schedule 2 of Exhibit 58, which appears on the second and third pages of the exhibit, constitute a detail of sales to gas utilities during the years 1939 and 1940?

A. It does.

Q. Let me ask you in that connection with respect to the item contained on page 2 of schedule 2 in column (H), line 7, is the figure shown, the net figure received by Panhandle Eastern Pipe Line Company?

A. It is.

Q. Now, Mr. Watkins, are the last two pages of this exhibit which are headed, "Schedule 3", pages 1 and 2, a detail of sales to industrial consumers?

A. For the years 1939 and 1940.

Q. And are—

A. Such a statement for the direct industrial consumers of Panhandle Eastern or Illinois Natural.

It does not include any indirect industrial sales.

Q. In other words, the industrial sales shown on schedule 3 of exhibit 58 are all the direct industrial sales made by this company and are all direct industrial sales; is that correct?

A. That is true; not only with respect to industrial [fol. 919] sales, but residential and commercial sales shown on the same page of that exhibit.

Q. I was speaking of schedule 3 of exhibit 58 when I mentioned particularly this question as to whether or not schedule 3 shows the sales to all of the companies' direct industrial consumers; and whether all of the sales are direct sales?

A. They are.

Q. In exhibit 58, you have included all the industrial customers, have you not, without regard to their annual bill—direct industrial customers without regard to their annual bill?

A. That is correct.

Q. Now, turning to schedule 1, which is page 1 of exhibit 58, is it a fact that all of the sales, both residential, commercial and industrial, and sales to gas utilities included [fol. 920] on that page are direct sales by Panhandle Eastern or its wholly owned subsidiary?

A. With the explanation heretofore made by this witness with respect to sales to certain customers to whom gas is transported by Michigan Gas Transmission Corporation, that is correct.

Q? Yes.

Now, the residential and commercial direct sales are down to very small amounts in the current year, are they not? A. They are.

Q. Your direct industrial sales, however, have risen materially? A. They have.

Q. And the same is true, is it not, with respect to sales to gas utilities?

A. That is right.

Mr. Littman: May I ask a question here?

Mr. Watkins, you do not show in exhibits 55 or 58 the pressure base that you used for the quantities of gas there-

in shown, whereas, you do show a pressure base in exhibits 56 and 57 at 16.4 pounds absolute pressure.

[fol. 921] Q. Can you state what the pressure base was that you used in exhibits 55 and 58?

The Witness: The pressure base at which the sales were made. It varies, of course.

By Mr. Wheat:

Q. You do sell some gas on a therm basis; is that correct? A. That is correct.

Q. Now, Mr. Watkins, have you also prepared a one-page document entitled "Statement of Gas Revenue by States" Period from April 1, 1932 to December 31, 1941?

A. Such a statement has been prepared under my direct supervision.

Q. The document I now show you is the document to which you have just referred?

[fol. 922] A. It is.

Q. Does this document, in your estimation, correctly purport, what it purports to show? A. It does.

(Document Referred to Was Marked Exhibit No. 59 for Identification.)

Q. Mr. Watkins, I think Exhibit 59 for identification is self-explanatory, but I should like to ask you whether you have with you data from which you could state the annual amount of industrial sales during 1933, 1936 and 1940 in Missouri, Illinois and Indiana, respectively?

If so, I would appreciate it if you would read those data into the record.

A. No, I don't have such information available.

Q. What data have you with you with respect to details of sales shown or revenues shown on exhibit 59?

A. The three states involved were?

Q. Missouri, Illinois and Indiana.

[fol. 923] A. I can furnish the industrial sales for the states of Missouri and Illinois for the years 1939 and 1940 only.

Q. Will you state those amounts, please.

A. Direct industrial sales made by Panhandle Eastern Pipe Line Company, in the State of Missouri during the year 1939, amounted to \$550,326.93.

In the year 1940, \$619,442.49.

Q. Will you give us now, Illinois?

A. The industrial sales made in the State of Illinois in those two years were respectively \$25,411.30, and \$22,844.20.

Q. Thank you.

Now, Mr. Watkins, have you prepared any statement in a tabulated form, or otherwise, showing the original cost of properties of Panhandle Eastern Pipe Line Company?

A. No, I haven't been able to do that at this time.

Q. Would you like to explain the situation with respect to that item?

A. On November 3, 1939 the Federal Power Commission issued its order No. 49, prescribing a system of accounts for the Natural Gas Companies under the Natural Gas Act. Sometime prior to that date, however, Panhandle Eastern and its subsidiary companies had been giving consideration to a study that might become necessary in order to develop a statement of the gas plant of its companies based on original cost under the Commission's definition for such plant, which we generally understood at that time to be the cost of gas plant to the persons first devoting the property in question to public service.

Q. Mr. Watkins, did the order No. 49, which you have just mentioned, contain a provision in respect to this matter?

A. It did. In Instruction No. 2 of such order, provision was made for preparation of a statement of original cost.

Q. And what has Panhandle Eastern Pipe Line Corporation done in that connection?

A. Immediately upon receipt of the formal order of the Uniform Classification of Accounts prescribed by the Federal Power Commission, our consideration of the problem and our work on it took definite form through the creation of a separate section of the company's general accounting department, manned by employees, specially

equipped to undertake and satisfactorily finish the transition of the companies' records from the accounting practices previously employed to those required under the Commission's Classification of Accounts.

Q. What further steps have been taken in that connection?

A. Well, the work thus undertaken was scheduled to provide in a satisfactory manner for the filing of the data [fol. 925] required by an order of the Commission dated April 9, 1941, which was order No. 73, and which provided in detail for the filing of so-called original cost data.

The effort was made for the completion of this study and a filing of the results of this study during the month of November of this year; this being shortly before the time fixed for such filing in the order.

Q. Will you please state for the record what the present status of this work is?

A. The advent of a tremendous volume of effort thrust upon the general accounting department as a result of the inception of these proceedings has thrown this company's time schedule, in connection with its original cost studies very much awry.

Since the early part of July of the current year, 1941, the time of the entire accounting staff, including those who had been engaged in the reclassification work, has been necessarily devoted almost exclusively to the preparation of material for use in connection with Federal Power Commission Docket G-200 and G-207.

[fol. 926] Q. Are we to understand that it is not possible for you to present at this time, such a re-classification, showing the original cost of the company's properties in the manner set forth in the Commission's order?

A. That is correct.

However, I should like to make a further statement in respect to that matter.

Q. Please proceed.

A. It is my opinion, based upon my experience with this company, and also my knowledge of the way in which its books have been developed, that when it becomes pos-



sible to make the filing required by the Commission, order No. 73, there will be very little, if any, difference between the investment of the company in properties as shown by its books, prior to the adoption of the Commission's Uniform System of Accounts, and the amounts to be reported as original cost.

I hold such opinion because practically all of the facilities used by Panhandle Eastern and its subsidiary companies were constructed by those companies and were first devoted by them to public service.

Furthermore, in respect to the small amount of property which was not so constructed and devoted to public service by this company, such property was acquired without [fol. 927] cost to those companies, and according to the best information we have thus far been able to obtain, was first devoted to public service by the organization from which these companies received the properties at no cost.

Q. Thank you.

Now, Mr. Watkins, one further document.

Have you prepared a document of a number of pages, I think 8 pages, headed, "Sales Agreements with Other Gas Companies as at June 30, 1941"?

A. Such a statement has been prepared under my supervision.

Q. And is the document which I now show you the one which you have just referred to? A. It is.

Q. Does it, in your opinion, correctly show what it purports to show? A. It is my opinion that it does.

Trial Examiner: It will be so marked.

(The Document Referred To Was Marked Exhibit No. 60 For Identification.)

Q. Mr. Watkins, briefly what does exhibit 60 show? [fol. 928] A. Exhibit 60 contains a tabulation of the sales agreements of Panhandle Eastern Pipe Line Company and Illinois Natural Gas Company with other Gas Companies as at June 20, 1941.

I mean, June 30, 1941. The information included in this exhibit gives the name of the customer, the territory served, some segregation of the nature of the service, the date of the agreement, or Federal Power Commission rate schedule under which service is rendered, and the expiration or term of either the agreement or rate schedule involved.

Q. And is it a fact that this exhibit shows both the firm and non-firm service in respect, first, to the sales agreements with other gas companies, and also with respect to the sales agreements with industrial customers?

A. That is correct.

Q. Are all of the sales agreements with industrial customers of an interruptable character?

A. They are, and with respect to that, certain of the agreements covering non-firm service have interruptable features.

Q. Yes.

Now, let me ask you, the pages 6, 7 and 8 of this exhibit deal with contracts of Illinois Natural Gas Company; do they not?

A. They do.

Q. The previous pages deal with contracts of Panhandle [fol. 929] Eastern Pipe Line Company; do they not?

A. In both instances, contracts or rate schedules; that is correct.

[fol. 931] Q. Mr. Watkins, one or two more questions. Are there any sinking fund requirements prescribed in any of the documents or indentures under which Panhandle Eastern Pipe Line Company's bonds or notes have been issued?

A. There are sinking fund requirements in the indenture dated November 1, 1940 between Panhandle Eastern Pipe Line Company and Chemical Bank & Trust Company and in the mortgage and deed of trust dated November 1, 1940 between Panhandle Eastern Pipe Line Company and City Bank Farmers Trust Company and James M. Kemper, trustees.

As to the sinking fund provisions of the note indenture there is provision for the retirement of the \$5,000,000 prin-

principal amount of serial notes in equal annual installments of \$1,250,000 on each November 1, 1942 to 1945 and the provisions in this respect are included in Section 1 of Article I of page 11 thereof.

The mortgage and deed of trust referred to contains sinking fund provisions with regard to an issue of Series [fol. 932] A bonds and Series B bonds. The Series A bonds, by the terms of the mortgage indenture are to be retired in equal annual installments of \$1,250,000 on each November 1, 1946 to 1950, inclusive, and their precise terms are shown in Section 1 of Article IV on pages 209 and 210 of that indenture.

The mortgage indenture also contains provisions for the retirement of the Series B bonds in accordance with the sinking fund provisions stated in Section 9 of Article IV on page 239 of the mortgage and deed of trust on the basis of \$1,200,000 each November 1, 1951 through 1960, inclusive.

Q. That is \$1,200,000 each year?

A. That is correct.

Q. Is that, in general, a statement of the various sinking fund requirements that are prescribed in the documents mentioned? A. It is.

• • • • •

[fol. 933] DAVID FRIDAY, called as a witness on behalf of Panhandle Eastern Pipe Line Company, being first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Wheat:

• • • • •

Q. And where do you reside?

A. I reside at 4525 Garfield Street, Washington, D. C.

• • • • •

I was graduated from the University of Michigan in 1908 [fol. 934] and appointed an instructor there in economics and began the teaching of economics and finance there in the autumn of that year. I was there as an instructor

until 1912 when I was made associate professor of economics and accounting and then taught economics and accounting, also public financing from 1912 to 1916. I was made a full professor in 1914.

In 1916 I left the University of Michigan and went to New York University, School of Accounts and Finance, where I had charge of the graduate courses in value and valuation, the subject of price and also courses in public finance.

I became head of the Department of Economics at New York University in the autumn of '17 and left there in the spring of '18, temporarily, on leave of absence at first, to come to the United States Treasury in April of 1918.

There my task was the planning of a system of war taxes, those taxes were largely enacted into law by Congress at the beginning of 1919.

I remained at the United States Treasury until September 1918. At that time I went to the Post Office Department under Post Master General Burleson, who was at that time in charge of the Government control and operation of the telegraph and telephone systems of the country.

My task there was one of doing the statistical investigations and the economic examination incident to awarding those companies just compensation for the use of their property as the law provided. I was there until September 1919.

When I returned to the University of Michigan I taught courses in money, credit and business cycle. I was there until 1921.

In 1921 I became president of the Michigan Agricultural College, now known as the Michigan State College, and I was there until 1923.

From 1923 to 1924 I was in Washington as Director of Research of the National Transportation Institute. Also, while I was at Washington, I lectured in public finance and the subject of value and prices at the Brookings Graduate School for Economics.

In 1925 I went to Europe and studied situations there. After that I was not engaged in strict academic work.

I also taught economics, incidentally, at Columbia University in the summer of 1920 and lectured at various places. I lectured at Harvard on the subject of value and depreciation.

Q. Dr. Friday, during your years of professional experience which you have detailed to us, had you even then commenced some work of a consulting character in connection with economic problems?

A. Yes, sir. In 1909 I worked with Professor Henry [fol. 936] Carter Adams who was at that time statistician of the Interstate Commerce Commission, as well as head of the Department of Economics at the University of Michigan, on the valuation of the franchises of the Detroit United Railway. That was a task that we did for the City of Detroit.

In 1911 I was in charge of statistics for the Michigan Commission of Inquiry into Taxation, a special Commission appointed by the Legislature. I had charge of that in the summer and autumn of 1911.

In 1912 I was employed by the Attorney General of the State of Michigan to work on a 2-cent passenger rate case, involving the rates on the Duluth, South Shore and Atlantic Railroad; a railroad in the upper peninsula of Michigan.

In 1913 I was retained by the minority stockholders of the Lake Shore & Michigan Southern Railroad, that is now the New York Central Railroad west of Buffalo into Chicago, to determine the fair value of the minority stock of the Lake Shore & Michigan Southern, the New York Central & Hudson River Railroad Company being owner of the majority of the stock.

In 1914 I was employed by the Railroad Commission of Michigan to rewrite the property accounts of the Pere Marquette Railroad then in reorganization, also to value the lands of the station grounds and the right-of-way of the Pere Marquette Railroad.

In 1915 I wrote a corporate history for the Michigan [fol. 937] Railroad Commission,—I believe it was called the

Public Utility Commission by that time, I am not quite clear,—of the Consumers Power Company and to determine the going value of that company for the Commission.

Q. Have you done any work in California?

A. In 1915, after I had finished this work with the Utilities Commission, I went to the City of Los Angeles to determine the value of the franchises of the Southern California Edison Company which were at that time being condemned by the City of Los Angeles in the acquisition of a municipality owned electrical property.

In 1916 I was engaged in an income bond case involving the income of the income bonds of Texas Pacific Railroad; that was a court case.

I was also retained by the bond holders of the Texas and Oklahoma and the Sherman, Shreveport, and Southern Railroads, those were two branches of the Missouri, Kansas and Texas, which was then in receivership, and negotiated the sale of the Sherman, Shreveport and Southern Railroad to the New Orleans interest that finally acquired that.

In 1917, while I was in New York at New York University, I was engaged in various matters involving valuation and reorganization and litigation.

In 1927 after I had been in Europe and was largely engaged there for several years, I was engaged by the [fo]938 minority stockholders of the Ford Motor Company who had sold their Ford Motor stock to Mr. Ford in 1919. There the task was to determine the value of the stock of the Ford Motor Company as of March 1, 1913. That resulted in testifying before the United States Board of Tax Appeals in the determination of that value.

From then on I was in various matters involving valuation, particularly of securities. Some of those cases that I have been in in recent years were a valuation of the common stock of the Curtis Publishing Company of Philadelphia. The occasion for that was the determination of the fair value of that stock for purposes of determining the estate tax of Mr. Edward Bok who had been editor of the Ladies Home Journal and who had died.



I testified before the Board of Tax Appeals in 1936 in that matter.

I testified for the United States Government, either '37 or '38, I believe it was '37, in the determination of the value of the stock of the Hoover Vacuum Cleaner Company stock which had no market value and never was marketed. In that case I testified before the Board of Tax Appeals for the United States Government.

In 1938 I was retained by the Laird Estate to determine the value of the common stock of the Christiana Securities Company, popularly known as the DuPont family holding [fol. 939] company. That was before the Board of Tax Appeals and that case was heard early in 1938.

Q. Have you been connected with the National Bureau [fol. 940] of Economic Research?

A. Yes, I have been connected with the National Bureau of Economic Research from very shortly after its origin. I may say that that is a non-profit organization located in New York City. It was organized about 1918 or '19 and it was devoted to pure research. I have been a Director in it almost from its inception and in the years '38 and '39 I was president of the Bureau and I am now Chairman of the Board of the Bureau.

Q. Did you engage in any activity from an economic viewpoint during the period of the N. R. A.?

A. Yes, during the period of the N. R. A. I acted as economist for the National Retail Dry Goods Association as economist in connection with the preparation of the economic information and statistics incident to the obtaining of the retail code for dry goods and boots and shoes and [fol. 941] hardware and several other retail lines.

I was also the economist for the Retail Tobacco Dealers' Association. That was one which involved an analysis particularly of unfair competition and one, by the way, which had a marketing agreement during the code days.

Q. Yes. Have you published any books in connection with your studies and your work?

A. I prepared a book of readings in economics, but I wrote and published a book of "Problems in Accounting" while I was at the University of Michigan and I published in 1920 a book entitled "Profits, Wages and Prices," published by Harcourt, Brace & Company.

I have published a good many magazine articles in the various economic journals, that is, the Journal of Political Economy at the University of Chicago, the American Economic Review, which is the official publication of the American Economic Association; Quarterly Journal of Economics, which is the Harvard publication, on such various subjects, particularly taxation, valuation and such. I have also written a good many articles in the more popular magazines, Atlantic Monthly, Review of Reviews, World's Work, Saturday Evening Post and the New Republic. I was contributing editor of the New Republic for four years.

Q. Dr. Friday, have you prepared a statement of statistical material and descriptive material entitled "Current [fol. 942] rent and Future Trends in Commodity Prices and Wages," with particular reference to the pending procedure. Have you prepared such a study?

A. I have.

Q. Is the document which I now show you the study to which you refer? A. Yes, it is.

Q. Was this prepared by you or under your direction except insofar as there are public documents and public statistics included in it? A. It was.

Q. Yes. And does it, in your opinion, correctly show what it purports to show?

A. It does, yes, sir.

(Document Referred To Was Marked Exhibit No. 61 For Identification.)

[fol. 943] Q. Now, Dr. Friday, referring to Exhibit 61 for identification, I wish you would turn to the first page and briefly outline what you did and what your conclusions have been with respect to the price situation.

A. Well, I studied the price situation as it existed. This study was begun, specifically this particular study—

I have always been interested in the subject of prices during the last war and during this one and the intermediate period, but I studied the whole movement of prices as it has been going on in this country since the war broke out, and particularly since the earlier part of this year, with a view to forming an opinion as to what was likely to be the course of prices in the United States throughout the duration of this war. I knew what happened in the last war. I became professionally interested and worked at that.

One of the first things I did was to discover what had been going on in prices and I may say that from my general information I knew what prices usually did during a war and in preparing this memorandum, on the second [fol. 944] page, page 2. I have inserted here a graph which portrays what prices have done during wars in the last century and a half, almost, the last 140 years.

Q. Dr. Friday, what, in general, has been the experience of the United States with respect to prices and price levels during periods of prolonged war?

A. In periods of prolonged war, by that I mean periods from say two, two and a half, three years, four years, prices have had a phenomenal rise in this country and in all Europe, too, and on this page 2 that price rise is portrayed.

The first peak that we have there was the War of 1812 in this country which was simply the American counterpart of the Napoleonic Wars.

The next one is a war there, a heavy black streak, which is the Mexican War in 1846. That was not of sufficient duration to have any marked effect on the price level in the United States.

But after 1860 came our conflict between the States, which is called the Civil War. That again sent the prices high, although there was no war in any other country. It sent the prices up here although it was our own private war.

Finally, just before 1920, comes the great uprush of prices in the World War, the first World War.

Now, those manifest very much the same characteristics. Wherever you have a war you expect prices to rise. [fol. 945]. That is the natural thing for them to do.

Q. May I ask you, Dr. Friday, what is the source of the graph attached to page 2 of Exhibit 61 for identification?

A. The graph that is here shown was prepared by the Bureau of Labor Statistics in an article entitled "134 Years of Wholesale Prices." It was published in the Monthly Labor Review in July, 1935.

Q. And is the precise piece of paper which you have attached, this graph on page 2 of your exhibit, has that been cut out of that Bureau of Labor Statistics publication?

A. Yes, well, it was a separate reprint. They had such a demand for them that they reprinted them, except that from '35 on,—this was only brought down to somewhere around '35,—from there on it is traced in ink by myself. The course of prices as shown by the Bureau of Labor Statistics in an exhibit attached to this report entitled Exhibit A which shows the history of commodity prices as prepared by the Bureau of Labor Statistics from 1890 to 1941, inclusive. Those figures from the Bureau of Labor Statistics I have sketched in that piece from 1935 on.

Q. Yes, and Exhibit A is the two pages of what was marked, coming after page 25 of your exhibit?

A. That is correct, sir. Exhibit A shows the Labor Bureau statistics for wholesale prices by months from [fol. 946] 1890 to date and A-2 there shows the prices by weeks for the period immediately preceding September, 1920. I put those in because there was no figure available for September, 1941.

Q. Those two sheets marked "A" and "A-2" are actual releases of the Bureau of Labor Statistics?

A. They are, sir.

Q. Inserted in the copies of this Exhibit 61?

A. That is correct.

Q. Has this price rise experience been true in the United States even though the United States may not have actually declared war or participated actively in hostilities?

Q. Yes, it has. That is true this time and was true in the World War up to the time we entered the World War.

Q. I wish you would outline for the Commission some of the data on which you base that view.

A. I took the Bureau of Labor Statistics' figures for wholesale prices by groups and analyzed them to see what had happened to them since the outbreak of this war. The result of that analysis is embodied in the table on page 4.

Q. What does that table show?

A. That table shows the movement of wholesale prices by groups and is prepared from Bureau of Labor Statistics Index which is released monthly for almost 900 commodities and is released also weekly, weekly and monthly.

Now, that is shown as Release 6270 on the part of the Bureau of Labor Statistics.

On page 4 I have simply copied from those figures, released by the Bureau of Labor Statistics, the movement of prices for the groups into which the Bureau of Labor Statistics subdivides the commodities.

These are index numbers and they are based upon the prices of 1926 as 100. We take those as 100.

In August, 1939, which was the month before the war broke out, all commodities that are included in this index number stood at 75. That means that they stood at 75 percent of the 1926 prices and when you go down the group list you find that they aren't all at 75 but at various prices; farm products at 61 percent of the 1926 level and foods at 67, and so on down, hides 92 and so on through the list.

By August '40—

Q. (Interposing) By 1940?

A. Yes, which is the second column, these prices had risen but not very much, they had only risen 2.4 points. That is the rise shown in that particular column.



By December, 1940, they had risen a little more, but they were only 5 points above August, 1939, level and they had risen as shown here.

By March, 1941, they were not up so very much yet, [fol. 948] they were 81.5 percent of the 1926 prices; that is, they had risen 6.6 points. That would be 8.8 percent.

Since that time, from then on until September 20, they have risen more rapidly and on September 20, which is the last week I had when I prepared this table, they had gotten to 91.5 percent of 1940.

Now that 91.5 percent of 1940, that index, is 22 percent higher than of August, 1939. Prices have risen that much; you have a 22 percent rise.

Q. That is a general figure for all commodities and there are variations in those prices from a low of slightly under 6 for metals and metal products to a high of 49.5 percent for certain farm products, is that not so?

A. That is correct, yes.

Q. But the average is the 22 percent which you have mentioned. Is that correct?

A. That is correct, that is the average.

Mr. Littman: May I inquire whether the 5.9 for metals and metal products would include such metal products as pipe for transmission lines of natural gas companies?

The Witness: Yes, they do. That is, they are in the metal and metal products groups, two kinds of pipe. The ones that are used by natural gas companies I don't know. I am inclined to think not, but the steel that is in the pipe which is used in the natural gas companies, certainly.

[fol. 949] The reason I am saying this, the two kinds that are in there—they have a black steel pipe which sells by the 100 feet, you people probably know what kind that is, and that is a rather expensive pipe. It costs something like, if I remember in the last war, \$4 or \$5 per 100 feet.

Then they have another pipe that sells for less, 6-inch diameter. The one that is included here, the pipe that is included in the natural gas companies. There are those two kinds of pipes that are included here and I suppose they must follow the general price of pipe which you use



in the natural gas company. I suppose you use the A. O. Smith Company pipe.

Mr. Wheat: Some of that.

Mr. Littman: And Youngstown Sheet & Tube.

The Witness: But the answer, generally speaking, is yes.

By Mr. Wheat:

Q. And Dr. Friday, is it not a fact, that with respect to metal and metal products, there was an effort on the part of governmental agencies to attempt to arrest a too great or too rapid price rise?

A. That is correct, yes.

Q. That has not been the case with respect to some other types of commodities, has it? A. That is true.

[fol. 950] The efforts on the part of the Government to restrain the rise in prices here and to control it in some measure has been directed in considerable degree to metals, copper, steel and zinc and so on.

Q. Will you turn now to page 5 of Exhibit 61 and proceed with your general discussion?

A. Now, these figures which the Bureau of Labor Statistics compiles and which are shown on page 4 are not the only set of statistics which is compiled by the Labor Bureau. It also compiles a group of 28 commodities, basic commodities. Those are compiled every day. You can call up the Bureau of Labor Statistics this afternoon at 5:00 or 5:30 and they will give you the index for this afternoon.

Those are the basic commodities. They are much more sensitive than this big group that we have shown here on page 4 and these are actual prices paid. The group on page 4 has largely quoted prices.

Q. May I ask you, Dr. Friday, have you brought up from the daily indices that you have discussed, have you [fol. 951] brought your figures up to approximately a week ago today? A. Yes, to the end of the month.

Q. September 30, 1941? A. That is correct.

Q. Will you proceed with your discussion?

A. These 28 basic commodities have also risen and they have risen a good bit more upon the whole than this larger group, which, as I said before, is shown on page 4 and this covers practically 900 commodities.

These 28 basic commodities had risen between August 29 and September 30 by 55.7 percent.

Q. You mean between August, 1939, and September of 1941? A. They rose 55.7 percent.

If I may go over them by dates, during the first year, that is from August, '39, to August, 1940, they rose only 5.6 percent.

Let me say one thing more about it. I have not put in here the index for those 28 commodities in September, 1939, and in October and November, that index would have stood at the highest point in those months at 127.

What we had directly after the war broke out was, a rapid rise in commodity prices so that these 28 commodities [fol. 952] ties ran up to 127, but by the middle of August of 1940, the year afterwards, they were back down to 105.6 percent. That means they had only risen 5.6 percent, that was all.

The first rise in commodities largely fizzled out during the nine months from about November, 1939, to August, 1940, and it stayed low then for a considerable length of time. Even on December 31, 1940, it was only up 18 percent and in March, 1941, the end of this last March, was only 133 for these 28 commodities.

Now, however, it stands at 155.7.

Q. And as far as foodstuffs are concerned, it is up as high as 170; is it not?

A. As far as foodstuffs are concerned, it is up to 170.8. In that connection it is interesting to note how the rise did go. The import commodities were among the first to make a decided move upward, that is on the 31 of March, 1941, there was already considerable shipping shortage and considerable difficulty with shipping, import commodities had risen 44 per cent while the food had risen only

33 and the domestic commodities only 29. They have since been as high, I think, as 155.7 and have been fluctuating around there for some time.

Q. That is a much larger increase, is it not, in general, of the 28 basic commodities than the movement on the general index number which is shown on Exhibit A at the [fol. 953] end of the book?

A. That is correct. That was only 22 percent and this is 55.

It explains, however, and helps to make us realize why a war will practically always produce a rise in prices. All imported commodities, if you are in a war in which there is an attempt to interfere with commerce and the sinking of ships and there gets to be any shortage of shipping, we will have a rise in the imported commodities and we will have it pretty quick.

There is nothing you can do about restraining that rise. There is simply a shortage of shipping and an enormous increase in shipping rates and the price goes up. That is one of the other evidences that we have had all along as to how prices were going.

I want to summarize right there, if I may, and make this point clear, that it is the natural thing for prices to rise in time of war.

Q. Why is that, Dr. Friday?

A. Well, it is due to the fact that every war, especially every modern war, results at once, after it breaks out, almost at once in a large increase in demand for commodities, because modern wars are fought with materials. That was especially true of the first World War, it was of this and it was even of our own Civil War which in many [fol. 954] respects was the first modern war. It was the first modern war fought after the railroads came. That, at once, then adds to whatever demand there was before the war came an additional demand for products, an additional desire and want for them. Not only is it that the people want more products, but it is a desire that comes from a quarter where there is a purchasing power to make that desire effective.

In any nation such as the United States there is power that is very large, it runs into billions of billions of dol-

lars, almost unimaginable, to pay for goods and at once you have not only this demand for things that we have had before, but you have demands from an organization that can make its demand effective, because Government has the power of taxation and the Government has, besides that, the power to borrow both from private individuals and from banks.

If the banks haven't got the money they can create credit and loan that to the Government so that you have at once a great increase in demand and a great increase in purchasing power because of the fact that the Government proceeds to buy commodities in large quantities and it is obviously the institution which has the greatest amount of purchasing power.

There are other reasons, one of them is the fact that the Government here doesn't buy with a view to reselling. [fol. 955] It doesn't buy it with a profit motive in mind. It buys with a view to gaining an end that is of enormous consequence and enormously important to the people. It becomes an absolute end in itself, so to speak.

You have to maintain the dignity and honor of your Government. To do it, you not only spend money, you spend life and all the old values pass away. You send your son forth to be killed, if necessary, without hesitation, so that you have an entirely new phase of demand in the situation and an entirely new aspect of demand coupled with practically unlimited purchasing power.

Certainly for the time being any such increase in demand would raise prices and it does raise prices. That is the natural thing for prices to do. If they can be restrained at all, nobody has yet succeeded in restraining them to anything like the level which exists at the time that war broke out, unless it be Germany, and it has done it by the methods that a dictatorship uses.

First it fixes a price at which goods can be sold and then having fixed that it fixes all the labor cost back. If you can do that and have a good enough police force that can detect any infringement of your law and that promptly prosecutes the offender, you can pretty well control prices.

Q. Is that possible in a country like the United [fol. 956] States, in your opinion?

A. We have no such police force as that and public opinion, anyhow, in my judgment, wouldn't stand for it. There would be no desire to do it here.

Q. I wonder if you would like to go back for a moment now and contrast what happened in the World War, starting in 1914? I believe on page 7 of your Exhibit 61 are to be found certain data on that subject.

A. Yes, naturally when we had the World War there was a great increase in prices and naturally when these prices began to rise,—may I say parenthetically that in the first year of the war we felt this wasn't going to hurt us? Prices didn't rise much.

Q. That is in 1914?

A. 1914 and this time, too, prices didn't rise much until after the fall of 1940. That same thing happened in the World War.

I have set down here on page 17 in the briefest possible compass just what did happen to prices in the World War. These prices are all shown on this Exhibit A and A-2, also.

Q. And are to be found in the little tabulation at the bottom of page 7? A. That is correct.

Now, in July 1914, that was the month in which the war broke out, I think July 28, it was just at the end of that [fol. 957] month, the price level stood at 67.3. That was on the basis of '26 as one hundred.

In the course of a year it had risen very little, less than 3 points in 15 months. Then it began to rise after that and by the 25th month, I chose that because we are now in the 25th month of this war, I mean Europe is, the World is, they had risen to 86.1 and so on down.

Q. You mean 85.1, do you not? A. 85.1.

I took this 67.3 as 100 and constructed the next column, it says "Basis of July, 1940" and divided the 67.3 into 70.2, that is 103. The next is 126, so that by August '16, which was the 25th month of the World War, prices had risen 26.4 percent.

Q. By August 1916?

A. Yes. We are now in the 25th month of the war and we saw on page 4, that prices had risen 22 per cent this time. I may say that that difference in the rise of prices is largely explained by the fact that in 1914 there were certain conditions that existed that didn't exist this time.

We had the merest fraction of the chemical industry in 1914 that we have today. We didn't have any chemical industry in the sense which we have now.

I think dyes is a subject familiar to all of us who are old enough to remember 1914. Our dyes came from Germany [fol. 958] many, and so that commodity ran up at an enormously rapid rate. It got up from something like 70 when the war broke out to 170 by the early months of 1916.

Also, in the field of metals and metal products, copper particularly, when it became evident that the war wasn't going to be over in six months or in a year, as the Germans had thought would be the case, and the Europeans came here in 1915 and began to place orders in large volume, then there came to be a great demand for copper.

Michigan was still a great copper producing state and up there we were perfectly familiar with what went on. Fifteen cents was considered a normal price for copper. But Europe came in and bought copper in great quantities in '15, the latter part of '15, and they found there were no supplies of copper or very small ones and that commodity was bid up and bid up until in the spring of '17 it was 36 cents. That is where copper stood. It had gotten down as low as eleven and a half cents in '14. There was a depression in Michigan and Detroit in September 1914, but later copper ran up.

Now, in this war there was no such great demand for copper from Europe as that, besides which there was control of price of copper as one of the first industries with respect to which they made such a control arrangement. There were only six producers that produced the great mass of copper and copper was pegged early this time.

[fol. 959] But aside from the chemicals and this special movement in metals, the speculative movement, largely, that then got to be a speculative movement in those days,



so that I think it explains why the price went up a little less this time than then. We didn't have those conditions in the present war.

Q. What happened after that month of the war?

A. By March 1917, when we entered the war,—we entered on April 6,—the prices had risen 60 percent, but they went right on rising after the 25th month. By August 1917 they had risen 84 per cent. Then, they didn't rise so much more from August, from that high level of 84 percent rise Government began then to control prices, reduce them somewhat from that high level. Copper was reduced from 36 cents to 26 cents and pegged there and the price rose less.

By the time of the Armistice prices had doubled. They stood at 202. They were twice as high as in August 1914.

Q. Did they go down?

A. They acted like they were going down for a month or two; they went down several points.

Q. Then what happened?

A. Then they rose and by May 1920 they stood at a level which was practically two and a half times as high as it had been in July 1914. It was almost the universal opinion of business men and many economists, too, that [fol. 960] prices, of course, would fall greatly after the war. People wrote articles about it. One of the New York banks I remember put out two pamphlets, one called "When Prices Fall" and "When Prices Drop" signed by the president of that bank and that was a pretty general notion.

By April 1919 they started up again and instead of having the great business slump that we expected at the end of the war, business improved and we ran into a post war boom which lasted throughout the rest of 1919 and on into May from [—] and June 1920 and by that time prices were almost two and a half times as high as they were at the outbreak of the war.

[fol. 961] A. So far prices have moved just about as they did in the World War the first. There is no material difference. And I, myself, don't see any reason to expect

them to move materially different. I expect to see a further rise in prices from this level and I expect to see it extend not only to the end of the war, but I expect to see it rise further after the war, not merely because it did then, but because the reasons which were then operative are operative now and will continue to be operative.

Q. Yes. I take it that on pages 11 to, I think, 14 of your Exhibit 61 you have discussed the reasons for price rises during war and you have outlined briefly those reasons.

Have you anything further you wish to state on that subject you possibly have not discussed?

A. I have this to say, there is this difference between this situation and the last situation, seemingly, this seeming difference, that we are now discussing the possibility and the desirability, not only the desirability but the possibility of restraining commodity prices from further rises in this country.

. . . . .

[fol. 963] Q. Dr. Friday, I wish you would continue with your discussion of the economic forces which are at play in connection with a rising price situation such as the one we are now facing.

A. When you come to the situation that we now have before us where we have already a very greatly increased demand on the part of Government and when that increased demand on the part of the Government has been accompanied by a great increase in demand on the part of the public which, because of the revival in business and the great increase in productivity, finds itself in possession of greatly augmented purchasing power, then we are in a situation where the forward movement of prices, the forward movement of prices of practically all kinds is inevitable.

Now, we all know that these prices are up 22 percent and we all know, furthermore, that the purchasing power of the people has been greatly augmented.

I have been studying this matter of what has just happened to wages. Taking the survey of current business [fol. 964] and the figures that are there given of wages other than wages paid in agricultural, we find that month

by month in this year the wages paid are \$1,000,000,000 a month above last year.

Now, in such a situation there is a great mass of people who have purchasing power in the form of money that they didn't have before and you are certain to have a greatly augmented demand for commodities and that is what we are having. That is why in recent months your price level has been advancing rapidly.

Now, there is another reason why the price level has been advancing rapidly in recent months, a reason which we didn't have back in the World War and that is the fact that our Government has definitely adhered to its policy, which it followed before the war, to increase the farmers' income. That is to increase the prices of agricultural products.

As you see on page 4, a very large part of this increase of 22 percent that we have had thus far came in agricultural products have increased 49.5 percent and the President in his statement which he made and which appears somewhere in these pages, said definitely, as justification for signing that bill in May when the amount of loans which the Government was willing to make against agricultural products was increased to 85 percent,—the President said that that was, it had been and was now the policy of the United States Government and he was signing the bill on that account.

[fol. 965] Q. Now on page 15 I see that you state that there is no likelihood, in your opinion, that costs of production will fall during the present war nor for some years thereafter. I wish you would briefly tell us your reasons for that conclusion.

A. Yes. The first reason, on the matter of the rise in prices, why it is bound to continue, is that it is, in entire conformity with the governmental policies that we have,—and I know of no objections to it, certainly no party objects to it,—that is to increase the farmers' prices. You can't increase the farmers' wages because the farmer does

his own work and doesn't work for wages. If he is to get more money he has to get it in prices.

Now, second, some governments have at times had some success in restraining prices, but they have only done it, any governments that have been at all successful, by restraining wages.

As a matter of fact, the only manner in which you could possibly restrain prices and hold them at a level say such as we have now, 91, on the basis of '26 as one hundred, would be to increase production of the commodities that people want and to do it at a cost so low that people would [fol. 966] offer them for sale at the old prices.

Now, if we could do that, if an increased flood of all sorts of commodities were coming on the market, it is imaginable that the prices might remain stationary here, but to do that you would have to have a cost of production which is stationary and which is low.

Now, the most obvious thing about your cost of production is that the principal cost of production, namely, labor cost, is not low and is not stationary. It has been rising right along.

Q. Do wages tend to rise during war?

A. Yes, wages always tend to rise. They did during the last war and they do during this one and it is the policy of our Government to increase the wages of labor and to increase the share of production that goes to labor.

Now, for manufactured products, by far the largest part of the cost of production consists of labor. You are inclined to say, "Well, what about material costs?"

In the automobile business they buy parts. Well the parts again are products and they are largely made by labor, so that when you resolve the general price of manufactured products, you find that after all the greater part of it is labor.

We know how much of it is labor. The Commerce Department reports annually and periodically, especially annually [fol. 967] on the size of the national income. That is it reports the sum total of the value of all of the pro-

duction that is turned out and upon the disposition that is made of it.

Now last year, 1940, the manufacturing operations of the United States resulted in an addition of \$19,000,000,000 to the national income. That is, that was the sum total of the net product of all manufacturing industries and it also shows,—this is in the survey of Current Business for June 1941, there is a special article on the national income during 1940,—that of that \$19,000,000,000, \$15,000,000,000 of it went for labor, went for wages and salaries. So as long as you have a policy in which labor cost is not restrained and in which wages are not restrained, obviously the cost of production isn't restrained. There is no prospect in the world that I can see that it will be restrained.

[fol. 968] Q. Dr. Friday, have you included in your discussion in Exhibit 61 for Identification data with respect to the increase in wages?

A. Yes, sir.

Q. And have you shown that these wage-increases are in operation in this country at this time?

A. Yes. I have also shown what happened to them formerly, during wars, as shown by the last war.

Q. Yes. What did happen to them after the last war?

A. I have here two graphs that show, I think, more briefly and concisely than anything else, just what did happen to wages during the last war.

Naturally, our recent data isn't as abundant or as good as our price data, but there is, especially during the last war, from 1914 to 1920—there is a record of the average weekly wages in manufacturing industries in New York State, which runs back to 1914 by months.

Q. That is Exhibit B?

A. Exhibit B.

Q. At the end of Exhibit 61.

A. Now, Exhibit B is a graph, which is prepared from the figures published monthly in the New York State Department of Labor, and this graph shows—and the figures [fol. 969] at the left side of the graph—these are not index numbers, these are actual dollars per week.



Going back to 1914, you will find there wages were half way between \$10 and \$15, or \$12.50.

In the middle of 1914, they rose gradually—not very much—through 1915, more through 1916, and in 1917, and finally in 1918 they had a very rapid advance. That is shown by the graph here.

Then there was a lull in the wages paid per week in the early part of 1919, after the Armistice had been signed, and then another rapid advance to the middle of 1920 and after.

Now, at the beginning of that period, wages stood at \$12.50 and at the end of it, they stood at some \$29.

They fell during the depression of 1921—the great post-war boom of 1920 came to an end during the summer of 1920 and they fell. It was generally believed at that time, and if you will examine the discussions, you will find they give evidence of the fact that people generally believed that these wages which had gone from \$12.50 to \$29 would have to go back somewhere not far from \$12.50.

The general effect, however, that actually happened, is shown on this graph. They went back a little under \$25, and in New York factories,—and I may say at the time I made considerable study of what had gone on in Detroit; especially, and that is the place they had gone highest, and [fol. 970] there again they didn't fall anywhere near as much as we expected them to.

Q. Then they reached another peak during the last year of the 20's?

A. Yes, with the return of good business in 1923, and rose and continued to rise throughout the 20's until they reached a peak in 1929, which was a little above the peak in 1920, and that was a little above \$30.00.

They fell with the Depression—1929 to 1932, revived in 1933 with the Code, and then continued rising, first to a peak in 1936, and finally passed through the old high level of \$30.00 which they had reached in 1929.

Q. What has happened during the current year?



A. During the current year they have gone from \$30.00 to somewhat over \$34.00 as this graph shows (indicating). They are still on their way up. These are wages per week.

I have also made a study shown in Exhibit C on the top graph of wages per hour in the manufacturing industry. This study was made from the data that is collected monthly by the National Industrial Conference Board. It is for twenty-five manufacturing industries. There are no figures available by months from the middle of 1914 to 1920, but there are figures available for the single month of July, 1914.

At that time—and here again the figures along the left-hand side are not index numbers, but wages per hour.

The wages in July, 1914, stood at \$.25 per hour, on the average.

[fol. 971] Detroit was somewhat higher, or the Detroit area was somewhat higher because Mr. Henry Ford had put in his \$5.00 a day wage plan during January, 1914, and so Detroit is a little above this, especially in the automobile industry, but the wages rose from 25 cents to over 60 cents, as shown here (indicating).

They got up there in the latter part of 1920. They fell in 1921, and dropped down to a low in 1922, which low again was far above the 25 cents that had been the average wage in 1914.

Q. The same is true with the low that occurred in 1933, is it not?

A. And then in 1933, again, even in that serious depression, it only got down to 45 cents.

Now, after 1933, we had an almost perpendicular rise with the revival of business in the Spring and Summer of 1933, and they rose here (indicating) until they got, in 1934, to a level which was very much like that which prevailed in the 20's.

In 1935, just at the end of the first six months, first six months of 1935, they passed through the old high. These are wages per hour, and they passed through the high of 1929, and with the revival of business in 1936 and 1937, they made the further advance which is shown here,

and then with the CIO and the sit-down strikes, they took [fol. 972] that perpendicular upward rise there in 1937 to 72 cents.

That is portrayed here, and then, with the depression of '38, they did not go down again but remained at about 72 cents. Now with the war, especially since the latter part of last year, they have taken another perpendicular advance and stand now at 82.8 cents. That is the figure for August. That is what is happening to wages.

Q. Is it a fact that at this time there is also a higher concentration of organization in labor that has had some effect on wages, that has had some effect on wages?

A. That is one of the great differences this time, as against the World War. We have at this time a high degree of organized labor. Industry is much more widely organized; many more workers,—that is number one; and, number two, they have very able leadership. It is their business to get higher wages. They know what they want and they know how to get it, and there is no sign of any cessation of that general movement of wages yet, and that is true of all industries. You can't raise wages in one part of an industry without getting into all of them, just as the price level spreads itself finally into every nook and corner of industry, so does this rise in wages. I don't see any chance of reducing costs. It seems to be perfectly clear we are going to have further increases in costs as we go along.

Q. In that connection, Dr. Friday, have you considered [fol. 973] the relation of taxes to prices?

A. Yes, I have considered that question.

Q. Have you discussed that subject in your Exhibit No. 61? A. Yes, sir.

Q. Commencing on page 20 of that exhibit?

A. I have discussed it very briefly, and what there is here I thought might be of illumination to illuminate the mind of the Court somewhat. I discovered the figures.

It is the table which appears on page 21.

Q. Will you briefly explain what is shown on that table?

A. On page 21 is a table showing total taxes, collected in the United States for Federal, State and Local purposes. That includes everything. It includes everything from

excess profits taxes to the tax on millionaires, collected by the Federal Government, right straight down to City, County, School District, and Road taxes, and that total tax of 1914, when the World War broke out, was \$2,383,000,000, and in the year 1917,—these are fiscal years by the way—the year ending July 30, \$3,158,000,000. That is what taxes were when we entered the war.

They rose as shown here (indicating) and they finally got to a peak in 1920 of \$9,204,000,000. That is the total tax bill upon corporations and individuals and all tax-[fol. 974] payers in the United States.

It got to a peak of \$9,204,000,000.

Q. 13.54 per cent of the then national income?

A. That is correct. They fell, as shown here, until in 1923, they were only \$7,200,000,000 and they rose again and in 1940, the tax bill in the country was \$14,300,000,000 and since then it has risen, and in the fiscal year which has just [begin], it is my opinion that taxes will be \$22,500,000,000. In fact, they won't be a billion away from that one side or the other.

Q. And what per cent will that be of the National income?

A. I estimate the National income will be \$90,000,000,000 for this fiscal year, and that is 25 per cent.

It simply shows the change, the radically different situation that we have with respect to taxes.

Q. Now, what have you to say as to the general price level by June 30, 1942?

A. Well, prices will rise, and the best estimate I can make, the best opinion I have, is that prices will be up to a level of 110 by next year—by June, 1942.

Q. A level of 110 on what basis?

A. On the basis of 1926, as a basis. They will be up to 91.5 to 100 by the end of the year, and 110 by next summer.

Q. And you feel your opinion is bolstered—do you think [fol. 975] it is bolstered by any statement of policy of the United States Government?

A. Yes. I, myself, am surprised at the great amount of talk we have had about inflation. People tell us that prices have gone up 22 per cent here since August, 1939,

and they talk as though that was a most serious matter, and use the name "inflation" to designate that.

Well, it wasn't what we thought of as inflation in this country at all—I am sure when we think back and remember what the President's attitude on taxes were at 1933—he said in 1934 we would have to get the price level up to 100. He said if we couldn't do it one way, we would do it the other, and he wanted debtors to be in a position to pay back their debts in dollars of the same purchasing value that they had had before, and that was the feeling that we would have to get up to practically that before we could get a revival, so there hasn't been any tremendous increase yet. 110 would not be a surprisingly large figure.

I think, by the way, I think the efforts that are now being made to restrain the rise of prices in the OPACS, as Mr. Henderson calls it, is one of the reasons it is not going to be higher than 110 by a year from now, and let me say further that the question of how high prices are going to go after that, they will be up pretty continuously during the duration of the war, and it all depends on just how long [fol. 976] the war is going to last.

Q. What have you to say, Dr. Friday, of the price problem after the war?

A. The price problem after the war, as I see it, will be just as it was after the last war. We are going to have another advance in prices over and above that which we have already had. I have already said we didn't expect that advance during the period after the last war, but I am sure we will have it this time, and we will have it largely because we are having this question of restrictions. We had it last time, we had the same questions on restrictions, and house building, and if you look at the cement figures last time, the cement production was down, automobile production, and we have the same restrictions now, but probably more so because raw materials are serious problems. The more you restrict the purchase of these things which the people want to minister to their wants and maintain their standards of living, the more intense is going to be the want for that.

Now, merely an intense want for things doesn't necessarily lead to the belief that things will go up.

I came to the conclusion after careful study of that—prices rose during 1919 and the first half of 1920. I came to the conclusion that obviously, of course, production had been restricted, but that the purchasing power to give business that impetus which started prices up again and led to the boom we had in the United States and the greater [fol. 977] period of industrial activity in 1919 and 1920,—that the purchasing power came from the bonds, Liberty Bonds that were bought during the duration of the war.

Those of us who are old enough to remember what happened then know what happened. The people who bought bonds in small quantities—I mean the man who bought \$25, \$50, \$200, \$500 or even \$1,000 didn't keep his bonds. What could he do with a \$200 bond, or a \$500 bond? His wife wanted some furniture. They wanted an automobile, or an improvement on the house—any one of those numerous things that people want when they have gone without them for years, and they went out and sold the bonds. Just to refresh our memory, I say that the price of Liberty Bonds at that time, 1920, was down to 85. The same Liberty Bonds are selling now for \$110.

I followed that thing with a great deal of interest. Everywhere in the cities—they were small places, holes-in-the-wall, as we call them where people sold bonds, and they bought these things which they wanted.

If we are fortunate enough to finance this war largely by a sale of bonds, to a great mass of people, so that the great mass of people that want things will have the bonds,—and I hope and believe that restrictions on their sale will not be put upon them—we will have the same thing happening again. We are having restrictions upon the [fol. 978] goods that people want in their homes, and if we sell these people now bonds for a part of their income, we are going to get another uprush of prices now as we did then.

Q. And will those uprushes of prices go to all phases of the cost of operating business?

A. Yes, all phases, and to the whole phase of prices. I looked that thing up a year or so ago. I was interested in that to see whether it wasn't limited to some one phase of it, and it isn't.



Q. And no business is exempt?

A. No business is exempt, except perhaps some declining business. But no business is exempt.

Q. Now, what is your conclusion with respect to the stabilization of process after the war period?

A. The stabilization of prices after the war period will be somewhere below the high peak that we reach after the uprush of prices which will follow immediately upon the war.

Q. What do you think that high peak will be, based upon your studies?

A. Well, if the war should last—it depends on how long it lasts, but suppose it lasts until the end of 1943—suppose it lasts two years more, I can't imagine that the price will be less than twice the price level that prevailed at the [fol. 979] outbreak of the war.

Now, the price level at the outbreak of the war, that is, the price level in August, 1939, was 75, and I believe that on the basis of 1926 as 100, it will be at least 150. That would be my opinion. I say that is putting it moderately; and that is making full allowance for this restriction we are putting on prices, to insure an orderly advance, rather than a runaway market.

Q. And have you formed any opinion with respect to the probable stabilization of prices after the post-war period, or after the preliminary post-war period?

A. Stabilization will be somewhere below the peak. They will also be decidedly higher than the prices which prevailed at the beginning of the war. Now, if I may give my observation on the experience after the last war. We had here a price, as we saw on page 11, of whatever that was there; that was 248 per cent of the price at the outbreak of the war. We thought those prices were going down somewhere back toward the 1914 level. They didn't. The prices in 1914 were 67.3 as shown in Exhibit A here, and from 67.3 in July, 1914, they ran up to 167 in May, 1920. That is 248 per cent. They didn't fall back to 67.3. They fell back to 91 in a single month or two, early in 1922. By 1926 they were at 100. It was 50 per cent above the old price level, and there they stayed. The prices in 1923 had been a little above that, but in 1926 they were 100, and [fol. 980] we took that then as the normal year.



I believe something just like that is going to happen in the next period.

You can't put prices down to the old pre-war level, because the cost of living has gone up, and it doesn't go down with the prices—the prices pull the cost of living up as they are rising, just as they did in the last war, and that is Exhibit C that is attached.

Q. Do you visualize any escape on the part of any citizen, or corporation engaged in business in this country, from the result of the price rise to which you have testified?

A. I can't see any escape from it, no.

[fol. 981] Trial Examiner: Before you start with your next witness, Mr. Wheat, I think, perhaps, I will ask you whether you would like to have Mr. Sperry prepare a tabulation as a result of his testimony on working capital. I personally would much prefer to have him prepare the tabulation resulting from that testimony.

Mr. Wheat: Yes. We will be happy to have Mr. Sperry do so, and we will present it at some stage of the hearing. I think I understand, Mr. Examiner, that you would like to have Mr. Sperry develop a table of the items here covered?

Trial Examiner: That is right, the working capital was [fol. 982] approximately \$1,500,000, and there were a great many details considered in arriving at that. We have the testimony in the book beginning at page 452, but a table made by others might not exactly meet Mr. Sperry's conception of the testimony.

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P. McDONALD BIDDISON, previously sworn, resumed his testimony:

Direct Examination.

By Mr. Wheat:

Q. Mr. Biddison, have you prepared a document entitled "Panhandle Eastern Pipe Line Company and subsidiary companies, deduction from cost of reproduction new for depreciation and present value of plant, property and business as of June 30, 1941?"

A. I have.

Q. Is the document which I now show you the document in question? A. It is.

Q. Was it prepared by you, or under your direction?

A. It was.

Q. Do you believe that it correctly states what it pur-  
[fol. 983] ports to state? A. I do.

(Document referred to was marked as Exhibit Number 62 for identification.)

Q. Now, Mr. Biddison, will you turn to page 1 of the document which has been marked Exhibit No. 62 for Identification, and state the figures which appear on that page.

A. The figures are, first, \$4,121,749.80.

Which represent the amount of depreciation which I estimate to have occurred in the plant of Panhandle Eastern Pipe Line Company and its subsidiary company, Illinois Natural Gas Company, as of June 30, 1941.

The second figure is \$79,711,698.74, which is my estimate of present value of the plant, property and business of Panhandle Eastern Pipe Line Company and its subsidiary company, Illinois Natural Gas Company, as of June 30, 1941.

This last figure is arrived at upon page 2 of this exhibit by deducting the first figure from my estimate of reproduction cost new of those properties, as of June 30, 1941, in the amount of \$83,833,448.54.

This last figure, and its component parts, as shown on page 2 of Exhibit 62, are from Exhibit No. 39 and its [fol. 984] corrections, 39-A.

Q. So that all the figures in column "(B)" on page 2 of Exhibit 62 are derived from and their details may be ascertained in Exhibits 39 and 39-A; is that true?

A. That is correct.

Q. Now, then, the items contained on columns (C) and (D) of page 2 of Exhibit 62 are items, are they, which are developed in the detail shown on the following pages of Exhibit 62?

A. Both the items shown in columns (C) and (D) on page 2 are developed in subsequent detail in this Exhibit 62.

Q. Yes. But the items in Column (D) are essentially subtractions from items in column (B), are they not?

A. That is correct, and the items in column (D) are the result of that subtraction.

Q. State what are the items in column (C)?

A. The items in column (C) totalling \$4,121,749.80 are the amounts by which I estimate the various classes of property have depreciated in value as of June 30, 1941.

Trial Examiner: When you say "the various classes of property," do you mean the physical property now in use, the plant, line actually in use, and those only?

[fol. 985] The Witness: I mean only the presently existing plant; not plants which have been retired or otherwise disposed of by sale, or any other means. The presently existing plant on the basic date.

Trial Examiner: In other words, you are arriving at a figure which you say represents the present existing depreciation in the property of Panhandle Eastern and its subsidiaries now used and useful in the public service?

The Witness: That is correct.

By Mr. Wheat:

Q. And your testimony now has nothing to do with any property [—] be acquired in the future?

A. No, sir; nor with any disposed of in the past.

Q. Yes. Now, Mr. Biddison, for example, will you take some item or some line on page 2 and state what you find to be the fact as to the depreciation existing in that particular item?

A. Starting first with Line 2, "Land." This particular land being production system property, its reproduction cost new is \$971.02. It is my opinion that there has been no depreciation on this land. I therefore made no deduction for it, and I have arrived at its present value in column (D) in the same amount, as its reproduction cost new figure.

The next item, line 3, page 2, "Leaseholds" is shown in [fol. 986] column (B) at the reproduction cost new and present value as determined by Mr. R. J. Wallace; he having determined present values. I have made no deductions for depreciation of "Leaseholds" and have carried them across into column (D) at the same figure as they appear in column (B).

. . . . .

My column (D) represents the estimate of value as of the basic date of the report, and Mr. Wallace's determination of values was as of that date. I therefore had no deduction to make from his report to ascertain values.

. . . . .

The deduction for depreciation on gas wells is recapitulated on page 4 of this exhibit and the details which are recapitulated upon page 4 are set forth in subsequent pages 5, to 8 inclusive.

I saw upon an inspection of property of Panhandle Eastern Pipe Line Company, beginning on August 17, 1941, a considerable number of the wells owned by Panhandle Eastern Pipe Line Company in the Texas Panhandle Field and in the Hugoton Field. Their appearance was uniform—that of being well-maintained. However, records available in the Kansas City office indicated that [fol. 987] on some wells, depreciation had occurred. It was not visible by inspection of surface equipment, and also disclosed that there were some wells in the Texas Panhandle Field located close to areas of oil production of which the rock pressure had declined to figures below that at which their drilling would not be justified if they had not already been drilled.

In determining the amount of money to be deducted from the reproduction cost new of any of the gas wells in these two fields, I have been giving consideration to the question of whether it was affected by the factor of obsolescence, due to depletion of the reserves underlying it, or to the factor of underground depreciation or deterioration disclosed by well history.

If no such factor existed, and no data existed to indicate material depreciation of the above-ground equipment, I depreciated the well one per cent for each year of age.

Q. On what ground?

A. On the ground that wells do depreciate with age and that with the small amount of depreciation that can now be detected by examination of those wells, depreciating them on the basis of one per cent per year of age was a liberal allowance for the amount of depreciation which had occurred on those wells.

I have depreciated other wells on the basis of some of the other factors which I have mentioned, and I call attention to some of them.

Line 15, the well Burnett No. 1-84-1013A, I have depreciated that well, which was drilled in 1930, 15 per cent, because of the decline in its rock pressure.

Similarly with the well shown at Line 21, I have depreciated that well 15 per cent.

At Line 5, Sneed 1-23-1903A, this well apparently has water-leakage into the casing as a result of a poor cementing job. It needs re-cementing and needs a new master gate. I have depreciated that well 25 per cent.

That explains the method which I have used with respect to wells, and the working papers will show the details with respect to any individual well.

Q. And have you listed all of the wells, in Exhibit 62, showing the amount of depreciation which you have found, after examination, to exist, in your opinion, in those particular wells?

A. Yes. I think I should make a further explanation with regard to wells in the local area.

Q. Please do. A. Shown on page 8.

Q. Of Exhibit 62? A. Yes.

These wells in the local area are shallow wells and generally have quite low rock-pressure. The last available [fol. 989] tests of rock-pressure and open-flow on these wells was as of September, 1936.

At that time, the rock-pressures on the wells tested ran from 12 pounds to 75 pounds, and the open-flow varied

from 10,000 cubic feet per day to 100,000 cubic feet per day. I have estimated that these wells have residual values from their costs of from 7 per cent low to a maximum of 25 per cent, and I have made a deduction for depreciation on those wells in accordance with those figures.

The details for those individual wells are shown in my working papers, but for wells in the Kansas side of the local area, I have deducted for depreciation \$8,583.91 from a reproduction cost new of \$10,518.32 to arrive at a present value of \$1,934.41.

Q. What about the Missouri local area?

A. On the Missouri side on the local area, I have deducted \$4,084.67, from a reproduction cost new of \$5,060.49 to obtain a present value of \$975.82. This is on eleven wells in Missouri and eleven wells in Kansas for the respective pairs of figures.

Q. In other words, you have developed a rather small residual value in respect to those particular local areas—particular local area wells?

A. Yes, I nearly wiped them out.

Q. All right. Now, Mr. Biddison, is there anything [fol. 990] further that you wish to state in explanation of the items contained on pages 5, 6 and 7 in connection with production system gas wells, excluding those of the local area?

A. Well, only that both as to those wells and as to the local area wells, the figures derived on pages 5 to 8, inclusive, are carried forward on to page 4 where I arrive at a total deduction for depreciation which has occurred in wells of \$180,364.61 to obtain a present value of \$1,873,519.78, which in turn is carried forward to line 4 on page 3 of this same exhibit.

Q. And also to line 6 on page 2, is it not, the general summary? A. Yes, sir.

Q. Now, have you explained in detail all of the methods which you used in arriving at the amount of depreciation which you estimate has occurred in the individual wells shown in the list on pages 5, 6, 7 and 8?

A. I have.

Q. All right. Mr. Biddison, will you turn to the item of "Other Production System Structures," which you show on line 5 on page 2 and state what depreciation you



found to have occurred as to those structures, and also state what those structures are and your methods of arriving at this depreciation?

A. The structures are those at the Camps in the Texas Panhandle Field and the Hugoton Field. They are [fol. 991] detailed on pages 10 and 11 of this same exhibit, No. 62. Upon my inspection, I made notations of the conditions of various structures at these locations, and I have applied the results of those observations to the reproduction cost new as estimated by me in Exhibit 39, to determine the amount of money to be deducted for depreciation on the various items of property.

Those deductions are shown in detail in column (C) on pages 10 and 11 and totals for each group are carried forward from pages 10 and 11 in the recapitulation on page 9, where I show a deduction for depreciation of Other Production System Structures of \$5,615.44 in column (C) to be deducted from \$42,188.75, to obtain the present value in column (D) of \$36,573.31.

Mr. Goodman? I have an objection. I move to strike all the testimony Mr. Biddison has given on the subject of accrued depreciation heretofore given, for the reason that he has not undertaken to state any basis whatsoever for the conclusions which he reaches, and they stand on the record merely as gratuitous conclusions. While it is conceded that the opinion of an expert may be placed in testimony, yet, on a subject such as valuation, or depreciation, it is necessary even for the logical probativeness of such testimony, that it be supported by basic facts so that we may be informed as to what facts the conclusions are drawn from. So far, the witness has testified only that he observed certain things. He has not [fol. 992] told us what he observed, and he depreciated it.

I submit that that is not adequate to that conclusion, and I therefore move that the testimony on the subject be stricken.

Trial Examiner: The witness is entirely qualified as an expert, and the motion will be denied at this time. The

witness will be subject to the usual cross-examination, which will enable you to determine whether or not the conclusions which are expressed in his proposed exhibit are well founded.

. . . . .

[fol. 995] PAUL BROWN COFFMAN, called as a witness for the Panhandle Eastern Pipe Line Company, being first duly sworn, was examined and testified as follows:

Direct Examination.

By Mr. Wheat:

Q. Mr. Coffman, will you please state your full name, and your address?

A. Paul Brown Coffman, 222 Sylvania Place, Westfield, New Jersey.

. . . . .

I am a graduate of Ohio State University in 1923 with a degree of Bachelor of Science, a graduate of the Graduate School of Business Administration, Harvard University in 1926 with a Master of Business Administration Degree.

[fol. 996] My present position is vice president and director of Standard & Poor's Corporation, 345 Hudson Street, New York City, which is a recent consolidation of Standard Statistics Company and Poor Publishing Company, publisher of Poor's Manuals.

. . . . .

I am in charge of research and valuation.

Q. And what, in general, are the activities of that corporation?

A. Well, Standard & Poor's Corporation is a company which gathers, collates and disseminates information pertaining to business, industries, commodities and investments, and offers services on a printed basis and on a professional and personalized basis.

. . . . .

Upon graduating in 1926 from the Graduate School of Business Administration of Harvard University, I went to

the College of William & Mary in Williamsburg, Virginia, where I was professor of economics and accounting for approximately a year and a half.

In 1927, I returned to the Graduate School of Business Administration at Harvard University to join the faculty, and I remained there approximately 10 years, teaching [fol. 997] business policy, corporate management and accounting.

During the time I was at the university teaching, I served as consulting economist for a number of various business organizations and financial advisory firms, including both Standard Statistics and Poor's Publishing Company.

I first was associated as consultant with Standard Statistics Company in 1928 and in 1931 became associated as a consultant with Poor's Publishing Company and took over the position of executive vice president and general manager which position I held for approximately two years.

I have collaborated on several books in accounting, and I have written a number of articles. Since I have been with Standard Statistics Company and later, Standard & Poor's Corporation, I have asked—I have been asked to make a number of special investigations, some of which related to situations which required presenting my analysis and findings before various courts and commissions including the Federal Power Commission.

Q. Now, Mr. Coffman, have you, at the request of Panhandle Eastern Pipe Line Company made a study of the investors' appraisal of the risks of capital in the natural gas industry as compared with other divisions of the utility industry?

A. I have prepared such a study.

Q. Is the document which I now show you—does that document contain the results of that study?

A. That contains a summary of the analysis.

[fol. 998] Q. And have you, in that connection, prepared also a volume entitled, as I have stated above, but marked volume 2, of statistics supporting data in volume 1, appendices A, B and C?

A. I have prepared that.

Q. Is this document I now show you the document to which you referred? A. That is right.

Q. Were these documents prepared by you, or under your direction?

A. They were prepared under my direction.

Q. And do they, in your opinion, correctly show what they purport to show? A. They do.

\* \* \* \* \*

(Documents referred to were marked for identifications as Exhibits 63 and 64.)

Q. In this connection, Mr. Coffman, have you also prepared a study dealing with, in general, the economic return requirement of Panhandle Eastern Pipe Line Company? [fol. 999] A. Yes, I have made such study.

\* \* \* \* \*

Q. Now, in connection with making that study and as a collateral part of that undertaking, did you make the study, the results of which are shown in exhibits 63 and 64 for identification? A. Yes, sir.

Q. Now, will you state first the purpose of that study, and then proceed to outline what you did in that connection?

A. Well, several years ago we undertook to produce a rather elaborate analysis of the investors' appraisal of the risks of capital in a broad industrial grouping.

After we had spent some time on that, it proved that the time necessary to complete the study as well as the cost, made it prohibitive.

At about that time we were retained by the Hope Natural Gas Company to produce such study, but confining it to the public utility division.

We found that that was of such scope we could produce the study within a reasonable time, and on that particular assignment, covered the investors' appraisals of risks relating to water companies, electric utility operating companies, manufactured and mixed gas companies and natural gas companies.

The results of that study later on were presented before this Commission in connection with the Hope Natural Gas Company.

The Panhandle Eastern Pipe Line Company in August of this year retained Standard & Poor's Corporation through me to make a similar study bringing the various data down to date and showing the results, the analysis and results being contained in this exhibit, Volume 1.

Q. When you speak of exhibit, volume 1, you are referring to exhibit 63 for identification? A. Yes, sir.

Q. And did you, in that connection, add to your study an examination of the investors' appraisals of risks in relation to natural gas pipe line companies?

A. Yes, we had to expand the study to include the pipe line companies.

Q. May I ask, parenthetically, Mr. Coffman, why you did not include the telephone industry in this study?

A. Well, the telephone industry, we found, was so predominantly covered by the American Telephone and Telegraph Company, and so many of the various individual companies' securities were held by the American Telephone and Telegraph Company, that we could not get sufficient data on market prices and on earnings to produce [fol. 1001] a study that we felt would be indicative of that particular branch of the utility industry.

Q. Now, may I ask whether exhibit 63 for identification presents the findings which have resulted from the investigation to which you have just referred?

A. Yes, that exhibit contains a full statement of the approach and procedure followed in the study.

Q. And may I ask whether it also contains your conclusions?

A. It contains the conclusions and certain exhibits at the end called "Statements A, B," and etc., which relate to the supporting statistics that were used directly in the computations made in this particular exhibit.

Exhibit 64 contains all of the figures and the working papers that were used throughout this entire study, the

two of them together are everything that we used in this study.

Once we selected the various divisions which I have already enumerated, from the water companies through to the various natural gas pipe line companies, from one place or another, depending upon where we could get the [fol. 1002] most complete list which I shall define later on, we took all the companies that applied to the division.

From that overall list, we made certain eliminations of companies for reasons that are given and which I shall specify later.

Thereby we came down to a group which was used in the study which we believed to be most representative of conditions in that particular division of the utility field.

Once we had those companies established, in order to ascertain investors' appraisal of the risks of capital, we took the earnings of each company that were available for all capital, that is, the earnings that were available to be used for paying interest, preferred dividends, or distributed to common stock and surplus.

We took the various amounts of capitalization that were outstanding, that is, bonds, preferred stocks, common stocks, and got the market quotations on those securities.

We took the average of the high and the low for each of the years studied and there are four years from 1937 through 1940 inclusive.

And the interim period from January of 1941 through August of 1941.

We multiplied the bonds, preferred stock or common [fol. 1003] stock outstanding in terms of issue, that is, number of shares, or thousands of dollars of bonds, by the average of the high and low market price, thereby securing a market appraisal for each of those divisions of capitalization.

Q. And for each of the periods you have mentioned?

A. For each of the years mentioned, and we then added those various amounts for each company together, getting



what we called a total indicated market appraisal of capital.

Then the total amounts for each company were added together for the list of companies that resulted from our eliminations and that gave us the total indicated market appraisal for all those companies. We added the earnings available for capital for each of the companies for each of the years in question, and that gave us the total earnings for that particular group.

We then divided those total earnings by the total market appraisal of capitalization, and that gave us a percentage figure which we said was, or represented the investors' appraisal of risks of capital in the particular division we are discussing.

Now, in this report—

Exhibit 63, I give an example as to the procedure so that the method will be clearly understood and then this exhibit is broken down as to sections, starting with water companies and going through the natural gas pipe line companies.

[fol. 1004] Q. Now, Mr. Coffman, I wish you would proceed in your own way to explain the data contained in this exhibit so that it may be clearly understood, briefly, explaining each step which you took in this examination.

A. Generally, I have outlined the procedure particularizing it to one company, so that it will be specific.

Q. What company do you take for that particularization?

A. I took the Boston Edison Company for the year 1940. It had a simple capital structure and would prove the point without taking up too much space or time.

First, for the years 1937, 1938, 1939 and 1940, the indicated total market value of all the securities of a single company was determined by taking the sum of the amounts produced by multiplying the number of each class of security, that is, bonds, preferred and common stocks as the case might be, outstanding at the end of each year, by the average of its high and low market quotations in that year.

For the interim period of 1941, January-August, both inclusive, the same procedure was followed except that the latest record of securities outstanding and the average of high and low market quotations for the period were used.

The Witness: Shown on page 6 of exhibit 63, I give [fol. 1005] an example which is captioned, "Indicated Market Value of the Securities Outstanding of the Boston Edison Company for 1940."

Taking the capital outstanding as of December 31, 1940 which is clearly captioned there was capital stock \$25 par value in the amount of 2,468,656 shares outstanding.

The 1940 market prices, high and low and the average, were 36 and 34, 30 and 34ths and the average was \$33.75 per share.

Multiplying the 2,468,656 shares by \$33.75 average price for the year 1940, gave an indicated market value of \$83,317,140.

In addition, the Boston Edison Company had first mortgage bonds, 234, maturing in 1970 outstanding in the amount of \$53,000,000 as of December 31, 1940.

The price of the bonds—\$103.53 per bond, which is used for that calculation, was the offering price used since issue was sold on December 10, 1940.

That is clearly shown in the note.

Multiplying the \$53,000,000 bonds—dollars worth of bonds, by the \$103.53 price, gave a market value of \$54,870,900. Adding the two dollar amounts together, gave a total indicated market value for December 31, 1940 of \$138,188,040.

Then, as shown in section (B) of the example captioned, "Indicated Market Value of the Securities Outstanding of the Boston Edison Company for the Interim Period of 1941, January-August, Both Inclusive", I follow the same [fol. 1006] procedure showing that there was outstanding the capital stock \$25 par, in the amount of 2,468,656 shares.

The interim period, high, low and average price was  $\frac{3}{4}$  and  $\frac{3}{4}$ ths, 26 and  $\frac{5}{8}$ ths and 30.69 respectively.

Multiplying the 2,468,656 shares by the average price of \$30.69 gave a total indicated market value of \$75,763,053.

Following the same procedure with the first mortgage bonds,  $\frac{23}{4}$ ths due in 1970, there were \$53,000,000 par amount of such bonds, outstanding, December 31, 1940.

In the period January 1 to August 31, 1941, both inclusive, the bonds reached a high of 104 and  $\frac{3}{8}$ ths, a low of 101 and the average was 102.69.

Multiplying the \$53,000,000 by 102.69 gave a total of \$54,425,700.

Adding this figure to the \$75,763,053 gave me a total indicated market value of \$130,188,753.

Q. Mr. Coffman, is it a fair statement to say that that example which you have just outlined discloses the method which you have used in each instance, and in respect to each selected period and each selected company in connection with the preparation of this study?

A. This represents exactly the method that is used in each of the cases you have mentioned and applied throughout this report so far as determining indicated market value is concerned.

[fol. 1007] Q. And I take it that, you used the high and the low and the average for the year because you deemed that to be a reasonable method of obtaining investors' appraisal of the risks of capital of that period; is that correct?

A. That is correct; yes, sir.

Q. Now, will you state what your next step was?

A. As shown on page 6 of exhibit 63, item 2, next there was determined for the individual company, the total earnings available for distribution to the securities, after taxes, depreciation and all other miscellaneous charges, as reported in the particular company's reports to stockholders.

For the years 1937, 1938, 1939 and 1940, earnings as shown in the published annual reports for the years in question were used.

For the interim period of 1941, January-August, both inclusive, the latest reported earnings covering a 12-months period were used, the dates of which are clearly indicated in the statements at the end of this exhibit, exhibit 63.

Q. Now, you have shown on page 7 of exhibit 63, have you not, by an example taken from the Boston Edison Company, just what you do in that step?

A. That is correct.

Q. Now, what was the next step which you took?

A. In the next step, as shown in item 3, page 7, exhibit [fol. 1008] 63, the earnings so determined under (2) A and B were then divided by the indicated market value of all securities as determined under (1) A and B respectively, and a rate for the period in question was thus obtained.

Q. I wish you would outline by an example just what you did in that step.

A. Following the same example, the Boston Edison Company, for the calendar year 1940, dividing the consolidated earnings available for capital, in the amount of \$7,730,837, by the indicated market value of all capital of \$138,188,040, gives a percentage of 5.59 percent which, in my opinion, fairly indicates the investors' appraisal of the risks of capital employed in that enterprise for the year 1940.

Q. Did you do the same thing for the interim period, January to August, inclusive, 1941?

A. Exactly.

Q. What was the percentage that you found in that instance?

A. The percentage is shown in (3) B on page 7 of exhibit 63, 5.92 percent.

Q. What was the next step in your study?

A. As shown in section (4) page 7, exhibit 63, having determined in the manner described above, the investors' appraisal of the risks of capital employed in each company selected, the indicated market value of the companies in each group, determined under (1) A and B above, was added to obtain the indicated market value of the capital securities of the entire group.

Similarly, the earnings available for distribution to the securities of each of the companies, as determined under

(2) A and B above, were added to obtain the total earnings available for distribution to securities of the entire group.

The latter figure was then divided by the former in order to obtain the investors' overall appraisal of the risks of all capital of the group.

This was done for each of the years 1937, 1938, 1939 and 1940, and for the interim period of 1941, January-August, both inclusive.

Now, in connection with this, the results of such computations for the years 1937, 1938, 1939 and 1940 appear on statements A to E at the end of exhibit 63. Statements A-1 to E-1 present such data for the interim period of January-August, 1941, both inclusive, and the complete working papers, upon which these statements are based are presented in Appendix C of the accompanying book of tables, volume 2 called Exhibit No. 64.

Q. Yes.

Now, in general, does what you have now testified cover in outline form the study which you have thus made?

A. It does.

[fel:1010] Well, on page 9 of exhibit 63, I present an analysis of the data on water companies, which shows that I first took all of the companies engaging solely in the water business from our Standard Corporation Records and those appear on pages 1 and 2 of appendix A in exhibit 64.

There was a list of 72 companies. From those companies, certain eliminations were made for purposes of this study.

Q. Will you state why you made these various eliminations?

A. Well, there were three main reasons as shown on page 9 of exhibit 63.

(1) Companies whose common stocks were held by one of the larger holding companies, such as American Water Works & Electric Company, the Federal Water Service

Corporation and the Community Water Service Company and whose stock had no obtainable market evaluation.

Q. You eliminated them, then, because you could not obtain for them the data you needed in connection with developing the study?

A. That is correct.

Q. Did you make other eliminations for other reasons? [fol. 101] A. (2) We eliminated companies whose stocks were closely held by relatively few individuals and had no available market evaluation.

Q. In other words, you eliminated those companies for the same reason, to wit:

That you were unable to obtain the data which you would need to make the necessary study in this investigation?

A. That is correct.

Q. Now, have you made other eliminations?

A. There was one further elimination.

(3) We eliminated the companies whose 1940 gross operating revenues were less than \$500,000. This latter class was not deemed of sufficient importance to be included in the study.

Q. Why was that?

A. Well, the companies whose gross revenues were so much smaller or lower than \$500,000, we did not feel were representative of the water industry as a whole.

Q. Now, when you got through with these eliminations from the 72 companies which you originally examined, what companies were left?

A. After the eliminations were made from the overall group of 72, there were 7 water companies remaining which were Bridgeport Hydraulic Company, Elizabethtown Water Company, Consolidated, Hackensack Water Company; Middlesex Water Company; New Haven Water [fol. 1012] Company; Plainfield-Union Water Company and Stamford Water Company.

Q. Now, do you consider those companies to be representative of the class in which they fall?

A. Yes, I thought they were entirely representative of the class in which they fell, and further, they are the only water companies, as a matter of fact, that you can find information upon of the size mentioned.



Q. What did you do with respect to those particular water companies?

A. I followed the same procedure as already outlined in regard to the Boston Edison Company.

Q. And have you shown in exhibit 63, the result of your investigation in respect to these water companies?

A.. That is correct.

On page 10 of exhibit 63, without going through all the details, details recited in connection with the Boston Edison Company, I give the results of such procedure as it relates to these water companies.

In a table on page 10, exhibit 63, I show that the total indicated market value of capital for 1937 was \$79,750,400.

For 1938, \$78,545,433.

For 1939, \$79,635,529.

For 1940, \$83,244,017.

[fol. 1013] And for the interim period, January-August 1941, \$81,816,519.

I show the total earnings available for capital for those same years, 1937, \$4,410,321.

For 1938, \$4,114,060.

Q. Without reading those complete figures, what are the percentages of investors appraisal of risks of capital which you found in connection with these companies during these various periods?

A. The percentages representing the investors' appraisal of the risks of capital were 5.53 for 1937;

for 1938, 5.24 percent;

for 1939, 5.64 percent;

for 1940, 5.13 percent.

For the interim period, January-August, 1941, 5.24 percent.

And the average for the full four years was 5.38 percent, which is given in the text, not in the table.

Now, in connection with that summary table shown on page 104 of exhibit 63, statements A and A-1 at the back of exhibit give the detailed information which I have already recited in connection with the Boston Edison Company and show how the resulting figures shown in the table on page 10 were actually ascertained without going through the details in the text to show it.

Q. Now, in that connection are all the data which you [fol. 1014] used for this particular branch of your study shown in the volume which has been marked exhibit 64 for identification?

A. The exhibit marked 64 contains therein a section called, "Appendix A" and in Appendix A on the first page there is shown a list of water companies from which selections were made to determine investors' appraisal of risks of capital. And there we will find the list of 72 companies which has been mentioned, and will find columnar captions which show the basis on which one or another of the companies were eliminated down to the 7 which we finally used.

Q. All right.

Now, where else in exhibit 64 are the data contained in respect to water companies?

A. Taking Appendix C.

Q. Which is headed "Working Papers Showing the Computation of Investors' Appraisal of Capital", is it?

A. That is correct. Water companies in that section of appendix C of exhibit No. 64 show it.

Q. Beginning on page 1 of that exhibit?

A. Beginning on page 1 and going through—beginning with the Bridgeport Hydraulic Company, showing the detailed information which actually is the information supporting the statement A and A-1 in volume 1, or exhibit 63.

Q. And the first 21 pages of the appendix you have just mentioned contain those data; is that correct?

[fol. 1015] A. That is correct.

Q. All right.

Now, having performed this investigation with respect to water companies, will you now turn to your analysis of the data of electric utility operating companies, and state what you did in that connection?

A. As shown on page 11 of exhibit 63, I have an analysis of the data on electric utility operating companies.

From an alphabetical list of telephone, electric and gas utility common stocks, considered in the course of the study of certain factors influencing investors' appraisals of risk characteristics, carried as schedule 9 of Federal Communication Commission publication issued June 15, 1938, and entitled, "The Problem of the 'Rate of Return' in Public Utility regulation" were selected all electric operating utility companies whose common stocks were outstanding in the hands of the public to the extent of at least 5 percent.

The complete list included 40 telephone, electric and gas companies in the schedule just referred to. From that, we made certain eliminations.

Q. Will you state why you made those eliminations?

A. Well, the eliminations were made from—(1), companies whose revenues were derived primarily from telephone service.

[fol. 1016] Q. You have stated, have you not, why you felt that telephone companies should be eliminated?

A. That is correct.

(2) Companies whose revenues were derived primarily from gas service.

Q. Is that because you have another section of this report dealing primarily with gas companies?

A. That is right.

The gas companies will come from this grouping, as a matter of fact but are classified as gas rather than electric and gas.

Q. And you have made no further eliminations?

A. (3) Companies whose common stock was outstanding in the hands of the public to an extent less than 5 percent.

(4) We eliminated those companies which were primarily holding companies.

Q. Why did you do that?

A. Because we were trying to get the investors' appraisal of risks of capital in operating companies as distinguished from holding companies.

Q. Now, out of the complete list of 40 companies, how many were left after you had made these eliminations?

A. There were 15 electric utility operating companies, remaining.

Q. Are those listed, and will you state what they are?

[fol. 1017] A. Those are listed on page 11, exhibit 63.

Q. And 12, are they?

A. 11 and 12. They cover Bangor Hydro-Electric Company.

Boston Edison Company;

Central Hudson Gas and Electric Company;

Cleveland Electric Illuminating Company;

Commonwealth Edison Company;

Connecticut Power Company;

Consolidated Edison Company of New York;

Consolidated Gas, Electric Light & Power Company of Baltimore;

Detroit Edison Company;

Duke Power Company;

Hartford Electric Light Company;

Pacific Gas & Electric Company;

Pennsylvania Water & Power Company;

Southern California Edison Company, Ltd.;

Tampa Electric Company.

Q. Those were the companies which you then studied; is that right?

A. That is correct.

Q. And did you perform the same general investigations with respect to those companies that you explained with respect to the water companies?

A. I followed that same identical procedure, yes.

[fol. 1018] Q. Will you state what were the results of those studies in respect to the investors' appraisal of risks of capital in connection with those companies?

A. As shown on page 12 of exhibit 63, the summary table of basic material and the investors' appraisal of risks

of capital which was the resulting percentage showed 5.47 percent for 1937.

5.52 percent for 1938;

5.42 percent for 1939;

5.46 percent for 1940;

5.61 percent for the interim period, January-August, 1941, both inclusive.

Q. What was the average over the four full years that you studied?

A. The average for the four full years was 5.47 percent.

Q. Now, have you included in your two exhibits that have been marked for identification the supporting data with respect to each of these companies for each of the years studied as well as the total figures for the group?

A. That is correct.

That is contained in statements B and B-1 at the end of this report.

Q. Exhibit 63?

A. Exhibit 63.

And, I show the information for each company and the [fol. 1019] indicated market value of capital for each year, the earnings available for distribution to capital for each company for each year and the investors' appraisal of risks of capital which is the percentage for each company for each year, and on statement B-1, I show the same material for each company for each year on the interim period, January to August, 1941, both inclusive.

Q. Yes.

A. And in volume 2, which is exhibit marked 64, I show in appendix A, page 3, the list of electric utility operating companies and others from which selections were made to determine the investors' appraisal of risks of capital which shows the full list of 40 referred to and in columns in our headings, show the method of elimination for whatever reason it might be, which left the resulting figure of 15, which has been considered in exhibit 63, pages 11 to 12.

Q. Mr. Coffman, is it your opinion that the elimination you have made in this section of your study, as well as the eliminations which you have stated were made with respect to water companies, and the eliminations which you are going to explain with respect to the other types of utility operating companies, are reasonable and necessary eliminations in connection with arriving at your conclusions?

A. I believe that they are.

Q. And, in connection now with these electric companies, did you include in your final study all of the companies [fol. 1020] which you believed reasonably representative of the electric industry and as to which you could obtain the data which was necessary to your study?

A. So far as I know, this is an all-inclusive list on the basis that I have outlined and is fully representative.

Q. And you did not, in any sense hand pick any of the companies you used with respect to any of the companies in these sections?

A. That is correct.

Q. And all of the eliminations were made on the basis stated in exhibit 63?

A. That is correct.

Q. Now, have you anything further that you would like to say with respect to the studies made on electric utility operating companies?

A. Well, except to emphasize that in this particular study, the source of information used came from the schedule 9 of the Federal Communications Commission publication. We believed that to be inclusive, and we had that checked against our own sources and found it to be such and we used that list on the theory that it had already been tested and had been found to be about as complete as any that could be prepared.

And then went on with the various eliminations as described, to get the final group of companies.

[fol. 1021] As shown on page 13 of exhibit 63, in making the data on manufactured and mixed gas companies, here a list was prepared of all operating companies distributed manufactured and or mixed gas from the Standard Corporation Records which appear on pages 4 and 5, appendix A in the exhibit marked 64.



From this list of companies, we made eliminations on the following basis:

(1) Companies whose stocks were controlled completely or practically so, by a holding company and for which there was no market evaluation.

(2) Companies whose gross revenue was predominantly obtained from services other than the distribution of manufactured and/or mixed gas.

(3) Companies with gross revenues in 1940 of less than \$1,000,000 because these were too small to have any important bearing on the final results.

Q. Those were all of the eliminations that you made, were they?

A. That is the basis of all eliminations that were made.

Q. Now, after making those eliminations, how many companies did you have left, and what were they?

[fol. 1022] A. There were 10 companies remaining in the grouping.

These were the Bridgeport Gas Light Company;

Brooklyn Union Gas Company;

Elizabethtown Consolidated Gas Company;

Hartford Gas Company;

Laclede Gas Light Company;

Peoples Gas Light & Coke Company;

Providence Gas Company;

Seattle Gas Company;

Springfield Gas Light Company;

Washington Gas Light Company.

Q. Now, in determining your figures for the investors' appraisal of risks of capital for these companies, could you follow precisely the same course that you followed with respect to the electric and water companies that you have described?

A. I did, yes.

Q. Now, will you please state what the results were in connection with these gas companies?

A. Well, as shown on page 14 of exhibit 63, we give the total indicated market value of capital for each of the years and the interim period, the total earnings available for capital for each of the years and the interim period, and dividing the total earnings available for capital for each of the years, by the total indicated market value of capital for each of the years, I get the investors' appraisal of risks of capital which was 6.12 percent in 1937;

6.72 percent in 1938;

6.72 percent in 1939;

6.89 percent in 1940, and

7.04 percent for the interim period.

A. The average as shown in the text was 6.64 percent.

Q. Is full supporting data for all the figures which you have used contained in exhibits 63 and 64 respectively.

A. Yes it is, and in exhibit 63, on statement (C), I show for each company for each year the indicated market value of capital, the earnings available for distribution to capital, and the investors' appraisal of risks of capital, and in statement C-1 at the end of exhibit 63, I show for each company, the indicated market value of capital, the earnings available for distribution of capital, and the investors' appraisal of risks in capital in percentage form.

Q. For the interim period?

A. Yes, for the interim period.

Q. When you speak of the interim period in your testimony, you mean the period, January to August, 1941, inclusive?

A. That is correct.

Now, in further support of those data in exhibit 63, [fol. 1024] there is shown in Appendix A, pages 4 and 5 of volume 2, exhibit 64, the list of all the operating companies distributing manufactured and mixed gas services as prepared from Standard Corporation Records wherein the entire list covered 85 companies—and it was from

those, that complete list that the eliminations were made, resulting in the final 10 shown.

Q. And, in the data you have just mentioned in exhibit 64, have you shown the reasons for the elimination of each company which was eliminated, and also the list of the companies which were used to determine investors' appraisal of risks of capital?

A. Yes, I have shown that, and in the subsequent tables in exhibit 64, all the detailed information is given on each company.

Q. All right.

Now, Mr. Coffman, did you make a similar study with respect to natural gas companies, and if so, will you outline what it was?

A. I made a similar study of natural gas companies and this is shown on page 15 of exhibit 63.

The list of natural gas companies from which selections were made to determine the investors' appraisal of risks [fol. 1025] of capital for this industry was the same as that prepared by Mr. Charles W. Knapp, Jr., of the Federal Power Commission in an exhibit entitled, "Rate of Return", which was submitted in the Hope Natural Gas Company hearings.

Q. That is a hearing which has been running along for the last two or three years, is that your answer?

A. That is correct.

This list was used since it appeared to be fully representative of the industry.

Mr. Knapp testified that:

"In preparing this list, an attempt was made to include all natural gas companies which had the following characteristics:

"(1) Companies engaged in the production and transmission of natural gas and sales thereof at wholesale and to main-line industrial customers;

"(2) Companies engaged in the transmission of natural gas and sales thereof at wholesale and to main-line industrial customers.

"(3) Companies such as those described in (1) and (2) above which also conduct retail distribution operations.

"(4) Companies so engaged which have annual operating revenues of \$2,000,000 or more."

Q. Do you believe that a list of companies determined as so stated by Mr. Knapp would be fully representative of the Natural Gas Industry in general?

[fol. 1026] A. We believe that was an inclusive list.

Trial Examiner: Mr. Coffman, may I ask whether, as you construe Mr. Knapp's basis of selection, his (4) of qualification, or condition, is a limitation upon the other preceding conditions?

The Witness: That is, the companies engaged which have annual operating revenues of \$2,000,000 or more.

Well, generally speaking, I would say that wasn't a very great limitation because for the companies that are listed, many of them are of such size that I don't believe that that elimination would—that particular process of elimination would restrict the study to any material extent, so far as results are concerned.

Trial Examiner: You do, however, understand that limitation is to be superimposed upon the other limitations?

The Witness: Yes, I do.

Mr. Wheat: You believe that was a proper limitation as made by Mr. Knapp?

The Witness: I believe it was a proper limitation as I have mentioned, for example, in a prior listing, where we have the manufactured and mixed gas companies, I eliminated companies of \$1,000,000 or less, and in the case of water companies, I eliminated companies which had gross revenues of \$500,000 or less. I think it is sound to do this on exactly the same basis.

By Mr. Wheat:

[fol. 1027] Q. How many companies were left after Mr. Knapp had made these various eliminations?

A. In this particular case, I show left 13 companies which are listed on page 17 of exhibit 63 and that is taken from a total list of 43 natural gas companies in all.

Q. In other words, Mr. Knapp included 43 natural gas companies, did he?

A. There were in his list, 43 companies.

Q. And would it be fair to state, as stated on page 16 of exhibit 63, the grand total of securities of these 43 companies which you have stated in your opinion are fully representative of the natural gas industry, is \$1,181,773,511?

A. I think that is representative, yes.

Q. Yes.

That is the total, is it, of those outstanding securities?

A. That is the total of the outstanding securities of the entire 43 companies which are listed.

Mr. Littman: As of what date, may I inquire?

The Witness: This particular date, I think is, as of December 31, 1940.

[fol. 1028] Mr. Littman: Isn't it apparently various dates?

I call your attention to Appendix B, page 1, of your exhibit 64, and ask you whether that will refresh your recollection as to what dates were used?

Mr. Littman: I see dates ranging from, well, one in July, 1940, one in March, 1941, another December 31, 1940.

The Witness: That is correct.

Mr. Littman: And also, December 31, 1939, and so forth.

The Witness: That is correct. The data given in Appendix B on pages 1 to 5, inclusive, on exhibit 64, show for each company the particular date and they vary. There

are some of them at the year's end for 1940 and 1939,—one or two for interim dates.

By Mr. Wheat:

Q. You mean pages 1 to 10, do you not, inclusive of exhibit 64? Appendix B, Exhibit 64?

The Witness: Pages 1 to 10, that is correct, and as explained in the note at the bottom of each of the exhibits, that is taken from the exhibit prepared by Mr. Charles W. Knapp of the Federal Power Commission, in the Hope Natural Gas Company hearing.

[fol. 1029] Mr. Littman: Are those the dates Mr. Knapp used?

The Witness: I believe they are; the ones that were taken from that exhibit.

By Mr. Wheat:

Q. Now, Mr. Coffman, considering these 43 companies, was it necessary for you, in connection with your present study, to make other eliminations, and if so, why did you do so?

A. Well, we did make some further eliminations on the original list, from the 43 companies we eliminated all companies whose common stocks were not outstanding in the hands of the public and for which an investment appraisal of this portion of capital was not obtainable.

After giving effect to these eliminations which are shown in Appendix A, page 6 in exhibit 64, there were 13 companies which remained.

Q. Will you state what they were?

A. These are listed on page 17, exhibit 63.

Consolidated Gas Utilities Corporation;

El Paso Natural Gas Company;

Houston Natural Gas Corporation;

Interstate Natural Gas Company;

Lone Star Gas Corporation;

Memphis Natural Gas Company;



Montana-Dakota Utilities Company;

[fol. 1030] Mountain Fuel Supply Company;

National Fuel Gas Company;

Oklahoma Natural Gas Company;

Pacific Lighting Corporation;

Panhandle Eastern Pipe Line Company;

Southern Natural Gas Company.

Trial Examiner: Referring to Appendix A on page 6 of your proposed exhibit 64.

The Witness: Yes.

Trial Examiner: Is that the list of companies that you have eliminated from Mr. Knapp's studies for reasons indicated?

The Witness: The Appendix A, page 6, shows it.

The Witness: In exhibit 64, it shows the list that was selected by Mr. Charles W. Knapp in the study that has been already referred to.

Trial Examiner: And in the middle, companies which you have eliminated in your conclusions?

The Witness: Exactly.

That explains the method or the reason for the elimination that I made from the group of 43, which I finally gave as a resulting list of 13 companies shown on page 17 of exhibit 63.

Trial Examiner: Now, you were about to state your reasons for those eliminations; is that right?

The Witness: I stated the reason for the elimination made.

[fol. 1031] By Mr. Wheat: \_\_\_\_\_

Q Will you elaborate on that, please?

A. As being the companies whose common stocks were not outstanding in the hands of the public, and for which an investment appraisal of this capital was not obtainable.

In other words, of the various companies that Mr. Knapp included in his list of 43, if we could not find a reliable market quotation on a portion of the common capital stock, then we eliminated that company from the grouping because we could not, you see, get an overall investors' appraisal of the market value and therefore, I did not have the basic figure to make a calculation on.

Trial Examiner: There were no other bases for elimination used by you?

The Witness: No, except just that one—as mentioned, in other words, Mr. Knapp had already listed certain bases of elimination, so I started with what he had, and added only one, namely—if I couldn't get an indicated market value for common stock, I had to eliminate that company. I couldn't make my calculations.

By Mr. Wheat:

Q. And having made that particular elimination, you had the 13 listed companies left, did you?

A. That is correct.

Q. Those which you have mentioned?

[fol. 4032] A. Yes.

Q. Will you proceed and state what you did with respect to development of your study as to these gas companies; natural gas companies?

A. Well, I followed the same procedure as outlined at the beginning of each of the preceding divisions, and as shown on page 17, exhibit 63, found by using that method, that for basic facts that there were total outstanding securities of \$492,892,522.

That was the total outstanding capital.

Q. That was 41 percent of the aggregate book value of all the 43 natural gas companies?

A. Approximately that, yes.

The Witness: It is 41 percent according to the figures, one shown on page 16 and the others on page 17 of exhibit 63, the \$492,892,522 is 41.7 percent of the aggregate book value of all 43 natural gas companies.

By Mr. Wheat:

Q. Do you believe, therefore, that you had obtained a representative sample of the natural gas industry?

[fol. 1033] A. I felt that I had, yes.

Q. What did you do with respect to these 13 companies?

A. Well, I made some analysis in this particular case to show the distribution of various types of securities, 49.2 percent in common stocks, 14.9 percent in preferred stock, and 35.9 percent in debts, composed of bonds, debentures, notes and advances.

Further, all of the outstanding securities of these 13 companies were not held by the public. Owing to the practice in recent years of selling many senior issues privately, \$82,732,500, or 46.8 percent of the total debt outstanding was held by institutions. In such cases it was necessary to estimate the investors' appraisal of this particular portion of the capital.

However, the possible margin of error in making such estimate was very small in view of available data on original offering prices and the subsequent trend of quotations for publicly held securities.

Q. Do you believe that any possible margin of error created by that estimate would be large enough to affect your general conclusions?

A. No. The margin of error would be so small it would have little or no effect upon the final results.

[fol. 1034] Likewise, \$11,000,000 or 15.0 percent, of the total preferred stock outstanding was held by affiliated companies. This amount was represented by the two issues of preferred stock of the Panhandle Eastern Pipe Line Company which were outstanding in the name of Gano Dunn, trustee for Columbia Oil and Gasoline Corporation.

Here again estimates had to be made of the investors' appraisal of these particular securities, but the margin of error in making such estimates of stocks calling for a fixed dividend payment, obviously could not be great.

Q. How about common stocks?

A. In the case of common stock, there was \$36,316,243 or 15.0 percent of the total book value of common stock of the 13 companies, also held by affiliates.

In no case, however, did affiliated companies own 100 percent of the outstanding common stock of any particular company and therefore, the investors' appraisal of the common stocks as indicated by the record of price quotations on the publicly held portions of the issues were used to determine the aggregate value of all the stock outstanding.

Q. Do you believe that to be a reasonable method in connection with your study?

A. I did. I think it is the only method that can be used in the—in a situation like that.

[fol. 1035] The procedure followed in determining the investors' appraisal of the risks of capital in the natural gas division of the utility industry was that previously described in section 1 above.

Q. And what were your conclusions with respect to the investors' appraisal of the risks of capital in this natural gas industry?

A. As shown on page 19, of exhibit 63, the investors' appraisal of risks of capital was represented by 7.81 percent in 1937.

7.58 percent in 1938;

7.60 percent in 1939;

8.03 percent in 1940; and

8.07 percent in the interim period, January-August, inclusive, 1941.

Q. What was the average for the four full years included in your study?

A. The average for the four full years is shown in the text on page 17.

Q. 19, you mean?

A. Page 19 of exhibit 63 which is 7.78 percent.

Q. Now, are the supporting data in connection with your study of these companies contained in these two exhibits, 63 and 64?

A. Yes, they are:

[fol. 1036] All the data that we have to work with is in either volume, exhibit 63 or 64 or the two of them.

Q. Now, Mr. Coffman, in connection with your study of these natural gas companies, did you ever have available data with respect to certain natural gas pipe line companies?

A. Yes.

Q. If so, what were they?

A. Included in this list of 13 natural gas companies which I have been discussing, there were certain pipe line companies, El Paso Natural Gas Company, Interstate Natural Gas Company, Memphis Natural Gas Company, Panhandle Eastern Pipe Line Company and Southern Natural Gas Company.

Q. Well, now, Mr. Coffman, it is evident, is it not that since these companies—these five natural gas pipe line companies which you have just listed as being included in the 13 natural gas companies you heretofore listed, eliminations from any all-inclusive list of natural gas pipe line companies had already been made by Mr. Knapp and by you on the basis which you have been describing?

A. That is correct.

Q. Yes.

Now, would it be true, would it be correct to state that these five natural gas pipe line companies, which you have [fol. 1037] mentioned were, in your opinion comparable because their revenues were derived principally from the transportation of gas through long natural gas pipe lines?

A. That would be correct.

Q. In any instance, in connection with these five natural gas pipe line companies, was the ultimate distribution system operated by the pipe line company itself?

A. No, I believe not.

Q. Now, what were the results of using your data and confining it to these five natural gas pipe line companies?

A. As shown on page 20 of exhibit 63, the investors' appraisal of the risks of capital was 9.63 percent in 1937, 9.52 percent in 1938, 8.84 in 1939, 9.55 percent in 1940, and 9.49 percent in the interim period, January-August, both inclusive, 1941.

Q. What was the average for the four full years contained in your study?

A. The average for the four full years is shown in the text on page 20 of exhibit 63 and it was 9.38 percent. There is a footnote shown on that same page which explains the data for Panhandle Eastern Pipe Line Company which shows that it could not be computed for the years 1937 and 1938, since no part of the common stock was outstanding in the hands of the public at that time.

Q. You mean that for those years, you did not, you were [fol. 1038] unable to include such data for Panhandle Eastern?

A. That is correct, yes.

Q. However, you did include such data for Panhandle Eastern in the other years of your study, is that correct?

A. Yes.

Q. All right.

Now, will you state whether, in this connection, you also have made an investigation of the investors' appraisal of the risks of the Panhandle Eastern Pipe Line Company, as such?

A. Yes, sir. On page 21 in exhibit 63, I show the determination of the investors' appraisal of risks of capital of Panhandle Eastern Pipe Line Company.

Q. I notice that, for the years 1937 and 1938, you show no figures and I ask you whether that is because of the same reasons as you have just mentioned in respect to the five natural gas pipe line companies?

A. That is for the same reason, yes.

Q. What did you find to be the total indicated market value of capital, the total earnings available for capital, and the investors' appraisal of risks of capital for Panhandle Eastern Pipe Line Company, for the years 1939 and 1940, and for the interim period, January-August, inclusive, 1941?

A. As shown on page 21, exhibit 63, the investors' appraisal of risks of capital was 8.40 percent.



Q. I would like to have you give us the figures for the [fol. 1039] total indicated market value, and the total earnings available for capital.

A. All right.

As shown on page 21, exhibit 63, total indicated market value of capital was \$66,681,674.

The total earnings available for capital in 1939 was \$5,601,585, and the investors' appraisal of risks of capital was 8.40 percent.

Q. What are the figures for 1940?

A. Total indicated market value of capital for 1940 was \$58,156,283.

The total earnings available for capital in 1940 was \$5,761,686; and

The investors' appraisal of risks of capital for 1940 was 9.91 percent.

Q. And for the interim period, January to August, inclusive, 1941, what were the figures?

A. Total indicated market value of capital as shown on page 21, exhibit 63, for the interim period, January-August, both inclusive, 1941 was \$64,219,240.

The total earnings available for capital in the interim period, January-August, both inclusive, 1941, was \$5,843,430; and the investors' appraisal of risks of capital for the interim period, January-August, both inclusive, 1941 was 9.10 percent.

[fol. 1040] Q. What was the average for the full two years included in this study?

A. The average for the full two years shown in the text on page 21 of exhibit 63 was 9.15 percent.

Q. Now, Mr. Coffman, in connection with this general study, have you included in exhibit 63 a summary of the analyses which you have just outlined?

A. Yes, on page 63 of exhibit on page 23 of exhibit 63, I show a summary of this study, and opposite that page is a chart numbered page 22 in exhibit 63, which shows the detailed information for each group for the four year aver-

age, 1937-1940, both inclusive, and for the interim period, January-August, both inclusive, 1941.

Now, the figures in tabular form on page 23, which supports the chart opposite page 22, show that the 4-year average, 1937-1940, both inclusive, was 5.38 percent for water companies; 5.47 percent for electric utility operating companies; 6.61 percent for manufactured and mixed gas companies; 7.78 percent for all natural gas companies; 9.38 for natural gas pipe line companies, and 9.15 percent for Panhandle Eastern Pipe Line Company.

The figures for the interim period, January-August, both inclusive, 1941, were 5.24 percent for water companies; 5.61 percent for electric utility operating companies; 7.04 percent for manufactured and mixed gas companies; 8.07 percent for all natural gas companies; 9.49 percent for [fol. 1041] natural gas pipe line companies, and 9.10 percent for Panhandle Eastern Pipe Line Company.

Q. Now, are those figures which you have just been reading the figures which form the bases for the development of the chart which appears on page 22 of exhibit 63?

A. The chart is just a graphic presentation of data shown in the table on page 23, exhibit 63.

As a result of my analysis, I thought that the one important thing that this analysis indicated was that the investors believed that there is a difference in risk in the different divisions of the utility field which I have covered; namely, water companies, electric utility operating companies, manufactured and mixed gas companies, natural gas companies, and natural gas pipe line companies.

Q. What is the range of that difference?

A. Well, the range in the investors' minds is from 5.38 percent for water companies to 9.38 percent for natural gas pipe line companies as based upon four full year averages and it ranges from 5.24 percent to 9.49 percent based upon the interim period, January-August, both inclusive, 1941.

Q. Well, is it fair to state that, as a result of your study, it is shown that investors appraise the risk of capital invested in natural gas companies at ap-

proximately one percent higher in respect to manufactured and mixed gas companies, and from two to two and one-half percent higher than in respect to electric operating utility companies?

A. That is the conclusion that I draw from these data.

Q. And is it also evident from these data that investors in general, consider the risks of capital invested in natural gas pipe line companies to be greater than the risks encountered in other divisions of the natural gas business?

A. They very definitely do, from these figures.

Q. Now, Mr. Coffman, is there anything further you would like to state at this time, with respect to this study?

A. Well, in connection with the data which is shown on page 22, in the graph of exhibit 63 and in addition to showing there is a difference in the risk, and the requirement that the investor has, he has also required over this four year period, that the average yield that he should secure, that is, the earnings, the relationship to independent market price, should be in the range of  $9\frac{1}{2}$  percent approximately.

In addition, there is one further point in connection with the study that I attempted throughout the study, to make this purely a statistical analysis. I have no opinions of my own in here. I have taken all the facts that were available on all the individual companies listed, and upon the classifications used, and so far as I am concerned, the [fol. 1043] figures speak for themselves.

They are just the results of an arithmetical computation, once the original totals are accumulated.

[fol. 1044] Q. Mr. Coffman, have you also prepared a study entitled "Study Relative to Rate of Return on Panhandle Eastern Pipe Line Company"? A. I have.

Q. Is the document which is in the hands of the reporter the study to which you have just referred?

A. Yes, sir, it is.

(The Document Referred To Was Marked Exhibit No. 65 For Identification.)

. . . . .

By Mr. Wheat:

Q. Now, Mr. Coffman, will you please state briefly what the general purport and purpose of Exhibit 65 for identification is, then will you outline what you did in [fol. 1045] connection with that study?

A. Exhibit No. 65 contains an analysis which I made in relation to the Panhandle Eastern Pipe Line Company with the purpose of determining the economic return requirement that I thought was necessary for the management to receive to permit them to render efficient service or discharge its public duties and generally maintain its credit position.

In some restatement I will amplify that later, but that is the digested result.

. . . . .

On the next few pages immediately following the page containing my statement of experience and qualifications, I present a synopsis of the history and development of the company. I believe most of such information has already been in as evidence in this particular case.

The actual source of this material, from my own standpoint was the S. E. C. registration statement and statements taken therefrom which appear in our publication [fol. 1046] called "Standard Corporation Records."

It shows as a part of that a map which presents the territory from which the company secures the gas and the mileage it covers and the ultimate consuming areas it serves.

I thought it was necessary for me to have familiarity with those facts before continuing my study, but I don't need to go into that here because it has already been presented.

. . . . .

Q. Now, will you proceed to state what your approach was to the determination of what you have just a moment

ago devoted as the economic return requirement of this company?

A. Well, over the past several years, while I have been making studies in connection with the investor's appraisal of the risk of capital, I have been trying to explore other data which I thought might be helpful and contribute something to a study of return.

Several months ago my company was, through me, retained to make an analysis for the Pennsylvania Power & Light Company which was to be presented before the Pennsylvania Public Utility Commission.

[fol. 1047] In that analysis I attempted to ascertain what the return, that is, the total compensation, should be to allow the management of that company to operate efficiently, discharge its public duties effectively and maintain its credit position.

In this particular study I have attempted to do the same thing. It occurred to me in the studies that I have made and reviewing the various Commission decisions and court decisions on the subject that in past cases the general approach had been one wherein various qualified people would make thorough studies, some relating to information that could be used for determination of the proper rate base and others were devoting their attention to what could be used as suitable material to form an opinion as to a fair rate of return.

So far as I understand those two things, multiplying a fair rate base by a fair rate of return gives a sum of money which is believed to be a reasonable amount that the company should receive for the service it discharges.

Mr. Littman: May I inquire, is this witness a lawyer?

Mr. Wheat: No, this witness isn't a lawyer, Mr. Littman. I have asked him to explain the basis of his approach to the study he has made. The answer is, no, he is not a lawyer.

The Witness: The dollar amount that was received, it [fol. 1048] seemed to me, was a matter which might be determined if one struck at that particular problem directly, so in this particular study I have taken the point of view that through a thorough analysis of all the data that

is pertinent and important to the subject I could arrive at a figure which, to me, would be an irreducible minimum of compensation required by the management of this company to continue to discharge its public duties and maintain its credit position.

In connection with the Pennsylvania Power Company, the Pennsylvania Power & Light Company, which study I had already made and presented before that Commission, I felt that I was following fairly precisely the various factors underlying a determination of a rate as outlined in the Solar Electric case.

Q. What is that case to which you refer?

A. The Solar Electric case is a case in which an opinion was handed down by the Pennsylvania Supreme Court and in the decision there there was--

Q. (Interposing). Give the reference.

A. 137 Pa. Sup. Court Rep. 325.

Q. All right. Now what was the particular statement of the Court which you felt you were following?

A. Well, I felt there that they outline certain underlying factors which I considered in my study from a [fol. 1049] statistical point of view to arrive at a conclusion. That statement was, "The Courts have held that the return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to pay all the expenses of operation, provide for depreciation; payment of interest and reasonable dividends and for a reasonable amount to be applied to a surplus account, thus insuring the maintenance of credit and enable it to raise money necessary for a proper discharge of its public duties."

Then, of course, there are references to the Bluefield Water Improvement Company.

Q. You are referring to Bluefield Water Works Improvement Company vs. Public Service Commission reported at 262, United States Supreme Court's Reports 679 at 692?

A. That is correct and United Railway & Electric Company vs. West.



In following my study of the Pennsylvania Power case, which is similar to the one here, I tried, statistically to present information on these various factors that are outlined and, so far as I understand the opinions, the same general factors were outlined in the Bluefield case and those are the ones that are the basis of my analysis.

So far as the actual presentation is concerned, it might appear to be a little different or new, but so far as I understand [fol. 1050] what I have done, I have followed this as precisely as one could under a statistical procedure, the various factors outlined as being important to this kind of a study in the courts, as I state.

. . . . .

Turning to Chart 2, captioned "~~Growth of Natural Gas Industry in the United States of America, 1906-1940, Both Inclusive,~~" I show a graph which presents natural gas production as represented by the solid blue line and the domestic and commercial customers as represented by the solid gray line.

. . . . .

[fol. 1051] The Witness: On this graph, of the exhibit, it must be observed that there are two scales, the scale on the left-hand side is in terms of billion m. c. f. production, which goes from 0 to 3.5 billions and relates, of course, to the solid blue line.

The scale on the right-hand side is in terms of millions of customers and runs from zero line to 14,000,000 customers.

The figures for the domestic and commercial customers for 1940 were not available, which explains the fact that one year is missing.

I analyzed these data because I thought it was essential in familiarizing myself with the background of the natural gas industry. I interpret these data to indicate that for a period for 1906 to 1920 there was a growth in the number of domestic and commercial customers and some growth in the production of natural gas.

In 1921 the blue line takes a dip, which to me indicated that the business depression following the last World War had some effect upon natural gas production.

Beginning in 1922 there was a considerable sharper rise in production which lasted until 1929.

In the next three years there was a decline which again indicated that this industry was subject to the fluctuations in the business cycle and beginning in 1933 there was an [fol. 1052] other sharp rise until 1937, followed by a year's dip for the recession that occurred in 1937 and '38 and then in the latter part of 1938 on through '40 another sharp rise, so that to me it indicates that the natural gas industry is still a growing industry, that its greatest and sharpest growth began subsequent to the post-war depression of 1920-22, that that industry is subject to business fluctuations and, therefore, carries risks connected therewith which must be faced by managements of various companies in the industry.

The line representing the number of domestic and commercial customers generally is extended upward, the period from 1922 to 1931 showing the sharpest growth and then some leveling off since that latter year, although still showing an increased number.

Now, in connection with this exhibit there is in the back of the Exhibit 65 a complete set of my statistical data for each exhibit that I shall describe here, the first one being marked as the first table therein "Table for Chart No. 2" and that table is captioned "Growth of Natural Gas in the United States of America for the years 1906 to 1940; Inclusive."

It shows a column for 1906 through 1940. It shows, column 1, the domestic and commercial customers in number, the 1940 figure being marked "not available" and the footnote shows support for what is taken from Moody [fol. 1053] Public Utility Manual 1941, page A 42. Column 2 shows the natural gas production in terms of thousand m. c. f. for the years 1906-1940 and the footnote 2 indicates that those data were taken from the United States Bureau of Mines, Minerals Year Books 1937, page 1062, 1941, page 1030 and each succeeding graph that I talk about is supported by a similar table of statistics properly documented with many sources of information as shown, except two or three charts which are fully complete in themselves and there was no need to duplicate the figures.

Q. In other words, you have included in this Exhibit 65 what practically amounts to your working papers for the development of the charts in question?

A. That is correct, every figure that I used is contained in this book.

Q. By the way, it has just been brought to my attention that you stated that the Solar Electric case was reported in the reports of the Pennsylvania Supreme Court. I think the record should show it was the Pennsylvania Superior Court.

A. I am sorry, I didn't know that I said that.

Q. Now, have you completed your explanation of Chart No. 2? A. Yes, I have.

Q. Now, will you turn to Chart No. 3 and state what is shown on that chart?

[fol. 1054] A. Chart No. 3, in Exhibit 65, captioned "Consumption of Natural Gas in U. S. A., 1919-1940, Both Inclusive," shows on the left-hand side one set of data captioned "Consumption According to Usage," and on the right-hand side data relative to "Consumption of Natural Gas Versus Industrial Production in Relatives; 1935-1939, Equalling 100."

The two different boxes in this one chart carry different scales. The left-hand one carries a scale in terms of billion m. c. f. from zero to 3.5 and the scale in the right-hand box is in terms of percent, since the figures are all relative, and the scale runs from zero to 160 and 160 or any other percent on that scale is percent of the average for 1935, 1939 equalling 100.

In the left-hand section, showing consumption according to use, the consumption for the years 1919 through 1940 are given in the various classifications, domestic and commercial, miscellaneous industrial, field use and carbon black and various colors, represent those classifications; but they are clearly marked and I need not explain each.

Generally I interpret these data to show that there has been a substantial growth in consumption from 1921 through 1940 as shown by the top blackline marked "Total Consumption" but that consumption has been influenced by the business cycle or fluctuations in general business as noted in the dip in 1921, the dip for the years 1930, '31 and [fol. 1055] '32 and the dip shown from 1937 to '38.

The total consumption, of course, has shown a marked growth from 1919 when it was 750,000,000 m. c. f., approximately, to a total in 1940 of 2,670,000,000 m. c. f.

In the right-hand exhibit the solid green line represents consumption of natural gas, excluding field use and carbon black and the solid gray line represents the total consumption of natural gas and the brown line represents the Federal Reserve Board of Industrial Production index for the years 1919 through 1940. We have an estimate of the Federal Reserve index for the year 1941 as shown by the dashed brown line to an estimated figure of 155 of the 1935-39 average equalling 100.

. . . . .

That average comes from the Federal Reserve Board, the other figures relating to consumption of natural gas and total consumption figures which are given from the sources already mentioned. We made the calculation to reduce them to an index so that they would be comparable with the Federal Reserve and be on the same basis with the Federal Reserve.

These graphs indicate that from 1919 to 1930 the trend of consumption of natural gas, excluding field use and carbon black, and the total consumption of natural gas, followed very closely together and, further, so far as trend was concerned, they followed the index of industrial production as made up by the Federal Reserve Board.

Since 1930 all three lines, as can be seen, are about on the same level and follow the same general pattern, indicating that the consumption of natural gas is subject to the business fluctuations as they occur.

It shows, also, that in 1940 consumption of natural gas was the highest of any time in the history of the industry, that the industrial production index was the highest in its history and that the estimates indicate conditions considerably beyond anything we have seen in the past.

Q. As far as industrial production?

A. As far as industrial production is concerned.

Now, that exhibit, also, as I have explained, carries a table at the end which is marked "Table for Chart No. 3", captioned "Consumption of Natural Gas in the United States of America for the Years 1919-1940" and the table's figures wherein information was available are given for the years 1919 through 1940, both inclusive, and are specifically marked to indicate that the column 1, which is in relatives, 1935-39 equalling 100 is a computation made by Standard and Poor's Corporation, based on figures that were already supplied from governmental sources.

The column No. 2, grand total, is shown to be United States Bureau of Mines figures from Minerals Year Book, already mentioned, and column 3, which is the Federal Reserve [fol. 1057] index, is taken from our Standard Trade and Securities where we reprint that index for public consumption.

Q. Now, is there anything further that you wish to state with respect to Chart No. 3?

A. I don't believe there is anything further than to make the point that I have already made, that the total consumption of natural gas has shown tremendous growth in these years, that it is subject to business fluctuations and, therefore, carries more risk than some other activity which might not be subject to such fluctuations.

The left-hand exhibit shows that the greatest growth since 1929 has occurred in miscellaneous industrial and field use. Other divisions have shown growth, but not in the same proportion.

Q. Now, Mr. Coffman, will you turn to Chart No. 4 in Exhibit 65 and explain what is shown on that chart?

A. Chart No. 4 of Exhibit 65, captioned "Revenue from Natural Gas Consumed in U. S. A., 1919-1940, Inclusive," is divided into sections, the left-hand box captioned "Total Revenue According to Usage at Points of Consumption" shows the total revenue and also revenue according to usage as between domestic and commercial, miscellaneous industrial, field use and carbon black.

That particular chart or section of the over-all chart, No. 4, carries a scale in terms of millions of dollars [fol. 1058] from zero to eight hundred million.



The right-hand division of Chart 4 carries a scale in terms of cents per m. c. f. from zero to 40 and shows the average value per m. c. f. as represented by the solid green line.

This shows that the average value per m. c. f. fluctuated from 21.6 cents per m. c. f. in 1919 to 29.1 cents per m. c. f. in 1922 and then came back to around 21.4 to the 22-cent level wherein it fluctuated until 1931 when it reached about 25 cents.

Mr. Littman: May I interrupt? Does your term "average value per m. c. f." mean average sales price per m. c. f.?

The Witness: That is the term customarily used by the Bureau of Mines in which it represents the total revenues shown in this chart divided by the "Consumption According to Usage" presented in Chart No. 3 of Exhibit 65, which gives you the average value per m. c. f. of consumption.

By Mr. Wheat:

Q. I take it then the two terms, as far as this chart is concerned, are synonymous. That is, the figures here, the amounts reflected are the sales prices?

A. Yes, that is correct. Of course, the one thing which we know is that this is an average value which covers [fol. 1059] domestic, commercial and miscellaneous industrial, field use and carbon black, some of which have very low prices because they are used directly in the field and others higher prices because they are used by the ultimate consumer and buyer, but it is the over-all average of those things at retail.

The Witness: Except for the two fluctuations indicated by the green line in the right-hand division of Chart No. 4 as occurring in 1922 and again in 1932 the average value, although showing some fluctuations, has kept on a reasonably stable basis, that is somewhere between 21.5 cents per m. c. f. to, say, around 22.5 cents per m. c. f.

Q. Would that indicate to you that the supply and demand were somewhat well balanced over these particular years?



A. It would seem to me that that was the case and the only difference that occurred in the two years here where there were more extreme fluctuations was for the most part accounted for by a temporary shift in the demand due to business fluctuations.

Q. General business fluctuations having their effect upon the demand for natural gas?

A. That is right, in cutting down the demand for gas, either for industrial use or for commercial and residential [fol. 1060] use.

The left-hand division shows, as represented by the top black line, the total revenue and that, of course, shows an increase for the period 1921 through 1940, but also shows that it was affected by business conditions in the same years as was the m. c. f. consumption.

Q. Now, these are, in general, what might be termed retail figures, are they? In other words, they are not figures of pipe line transmission company?

A. No, sir, they are the revenue according to uses based on points of consumption, that is right.

Q. They show, do they not, that the revenue from the rather large use shown in Chart No. 3 for carbon black is a relatively very small revenue? A. That is correct.

Q. And that the same is largely true of the field use?

A. The field use, the largest amount of revenue comes from domestic and commercial and the next largest from miscellaneous industrial.

Q. Now the data on which you have based the material shown on Chart No. 4 is shown on the Table for Chart No. 4, is it not?

A. The table for Chart No. 4 at the end, yes, sir.

[fol. 1061] Chart No. 5 of Exhibit 65, captioned "Average Revenue Per M. C. F., 1929-1940, Both Inclusive," the exhibit is again broken down into two sections, the left-hand section shows the average industry revenue from natural gas consumed in the United States of America at points of consumption and that particular exhibit is in terms of cents per m. c. f., the scale ranging from zero to 80, and the right-hand division showing the average revenue, Panhandle Eastern versus the industry, the scale.

there being in cents per m. c. f. but running from zero to 50.

This merely is a breakdown of information shown in the preceding exhibits to indicate that the average industry revenue of natural gas consumed in the United States of America at points of consumption is lowest for carbon [fol. 1062] black which ranges from 1.9 cents per m. c. f. in 1929 along at a rather level line for some years, but finally declines to 0.9 cents per m. c. f. in 1939. The 1940 figures are not yet available.

The field use shows a little larger revenue but has indicated a decline in the years 1929 through 1939, the figure for 1940 not being available, from 9.7 cents per m. c. f. in 1929 to 4.2 cents per m. c. f. in 1939.

Miscellaneous industrial, which is the next line, shows a clearly marked, general downward trend from 19.7 cents per m. c. f. in 1929 to 16.6 cents per m. c. f. in 1939, the 1940 figure not being available.

Then in the next bracket, which is for commercial, the figures are larger amounts, starting with those first available for commercial of 47.8 cents per m. c. f. in 1930, increasing to 50.4 cents per m. c. f. in 1932 and then fluctuating something under that throughout the years and being 49.2 cents per m. c. f. in 1940.

The domestic, which is the higher rate, shows 67.8 cents per m. c. f. in 1930, an increase to 74.8 cents in 1932 and then a somewhat minor decline through the years to 1940 at which time the level was 73 cents per m. c. f.

The main purpose of this was merely to show that in the various different classifications of usage the rates vary according to type of use and point of consumption and this [fol. 1063] was to familiarize me with those data.

On the right-hand division there is a comparison made of the figures for the total industry, excluding field use and carbon black, at points of consumption as shown by the green line, indicating that there the average revenue varied from 35.7 cents per m. c. f. in 1929 to a higher figure of 40.7 cents in 1932 and then a general decline through the remaining years until it reached a level of 34.7 cents per m. c. f. in 1939. The 1940 figures were not available.

The solid red line shows the Panhandle Eastern Pipe Line Company average wholesale rate for the years in which it was available, beginning with 21.1 cents per m. c. f. for 1934 and increasing gradually to 23.4 cents per m. c. f. in 1940.

Now, it must be borne in mind, of course, that this particular section of Chart No. 5 in Graph 65 for all practical purposes—

Q. You mean in Exhibit 65?

A. In Exhibit 65 is for all practical purposes, comparing a wholesale rate, that is the Panhandle Eastern figure with a retail rate which is the figure representing the total industry.

Q. Well, in a sense those are not comparable figures, are they?

A. They are not comparable figures, but since the various gas which is transported and sold by Panhandle [fol. 1064] Eastern at wholesale ultimately gets to the hands of the consumer, I have merely put the two on the same chart to see what the trend was.

Q. Well, Panhandle Eastern Pipe Line Company's average wholesale rate has slightly risen, has it not, during these current years, '34 to 1940?

A. That is correct, yes, sir.

Well, I think it is chiefly explained by the fact of a shift in the usage on the part of the gas transported by the company, that is as you change the relative proportions of the amount of gas that is used for domestic and commercial or for miscellaneous industrial or field use, and so on, you naturally have an influence on the rate because—

Q. (Interposing) You have shown that the domestic and commercial carries much higher rates, have you not, in the left-hand box on Chart No. 5?

A. That is correct, and I presume that is why the proportion or average here has gone up a little, as that particular division has increased.

There is a table at the end of Exhibit 65 for Chart No. 5, stating all of the data that was used to prepare the exhibit.

and shows that such information was taken by Standard [fol. 1065] and Poor's Corporation from Moody's Public Utility Manual.

Chart No. 6, Exhibit 65, captioned "Panhandle Sales by States Versus Industry Consumption of Natural Gas, 1930-1940, Inclusive"—

Q. (Interposing) You mean 1934?

A. 1934, 1940, inclusive.

This exhibit carries two scales, the left-hand scale which ranges from zero to 90 is in terms of million m. c. f. for Panhandle and the scale on the right which ranges from zero to 1.8 is in terms of billion m. c. f. for the industry.

This exhibit in the band portions which are marked "Total Panhandle Sales" shows the sales broken down in the states that consumed the gas.

The green portion represents the amount that was taken by Michigan; the orange portion by the State of Illinois; the blue portion by Indiana and Ohio; the yellow for Missouri and the red for Texas, Oklahoma and Kansas.

That portion of the exhibit shows by the top line that [fol. 1066] the sales have increased at a rapid rate from 1934 when it was equivalent to 13,500,000 m. c. f. for Panhandle to 56,400,000 m. c. f. in 1940.

The exhibit also indicates that the service to Detroit increased the company's sales beginning on completion of its service to that city, that is, the completion of the facilities to get gas to Detroit, beginning in 1937, but from 1937 through 1940 the chart indicates that the growth in sales for Michigan have not been as great as has the sales in Indiana and Ohio.

In other words, if one were to make a comparison from the 1937 level in each of the classifications, he would find that there has been a lesser growth in Michigan since the addition of Detroit than has been the growth in the service to the states of Indiana and Ohio.

The exhibit further shows, as represented by the solid brown line marked "Industrial Consumption Exclusive of

Field Use and Carbon Black," that the consumption in the industry rose from 981,000,000 m. e. f. in 1934 to 1,598,000,000 m. e. f. in 1940.

However, the growth shown for the industry was exceeded by the growth shown by Panhandle Eastern because if one compares the line marked "Total Panhandle Sales" with the line marked "Industry Consumption," you can observe that there is a narrowing of the gap as you proceed from 1934 to 1940, which indicates to me that Panhandle Eastern Pipe Line Company has shown a more rapid growth than has the industry as a whole.

Q. You have included; have you not, a table showing the detailed figures from which you prepared Chart No. 6?

A. Yes, sir, that is marked "Table for Chart No. 6" presented at the end, included in the table of statistics at the end of Exhibit No. 65 and shows the various sources from which the information was taken.

Q. All right, now is there anything further you wish to state about Chart No. 6?

A. I don't believe there is, except that an observation can be made that is of some interest in regard to Panhandle sales; that whereas, as shown in a preceding exhibit, there were fluctuations caused in the industry generally by fluctuations occurring in general business,—and that is shown in the line marked "Industrial Consumption" for the period '37 and '38,—Panhandle Eastern at no time in its total sales showed any decline, although there was a slight leveling off which indicated to me that perhaps the management had been very alert in operating its business and holding it or at least it fared better, we will say, than other units in the industry.

Q. Yes.

Now, will you turn to your Chart No. 7 and state what is shown by that chart?

A. Chart No. 7 in Exhibit 65, captioned "Trends of Gross Revenue, 1934-1940, Both Inclusive, Panhandle Versus Other Pipe Line Companies and Industry," is shown here in terms of relatives, 1934 equals 100. The purpose of doing that was because the figures for the industry

and for other pipe line companies were so much larger than those for Panhandle Eastern that the only way to show comparability as to trend was to reduce all the series to relatives and start from a common point, which in this case was 1934 equalling 100.

In this case the Panhandle Eastern Pipe Line figures are represented by the red line and show this tremendous growth in gross revenue from 1934 through 1940, representing an increase of 344 percent over the 1934 level.

That compares with figures for total other pipe line companies which increased 91.3 percent of the 1934 level and the figures for total industry which increased 38.7 [fol. 1069] percent for 1939 over the 1934 level. The 1940 figures were not available for the industry.

This exhibit also shows the point I have just made, that the revenues for Panhandle Eastern, although slowed in one or two places by fluctuations in general business, never showed a decline, whereas the industry as a whole and total other pipe line companies did show declines where there were marked recessions in general business.

Q. Have you in your table for Chart No. 7 shown the actual data for other natural gas pipe line companies?

A. The table for Chart No. 7 appearing at the end of Exhibit 65 shows the trend of gross revenue for Panhandle Eastern Pipe Line Company, for the other pipe line companies and for the natural gas industry as a whole and those other companies included Cities Service Gas Company.

Q. About how much did that rise?

. . . . .

A. I can give it to you in percentage, it was 44.32 percent higher in 1940 than in 1934.

Q. And as contrasted with 344 percent for Panhandle Eastern? A. That is correct.

[fol. 1070] - Q. Now, what about El Paso Natural Gas Company?

A. El Paso Natural Gas Company showed an increase from 100 percent, that is the 1934 figure, to 314.34.

Two hundred fourteen percent higher than the '34 figure.



Interstate Natural Gas Company, Inc., showed an increase of 71.29 percent in 1940 above the 1934 figure.

Memphis Natural Gas showed an increase of 87.15 percent greater in 1940 than in 1934.

Mississippi River Fuel Corporation showed 85.03 percent higher in 1940 than in 1934.

~~Northern Natural Gas Company showed 100.84 percent higher in 1940 than in 1934.~~

Southern Natural Gas Company showed 200.88 percent higher in 1940 than in 1934.

The total other pipe lines showed a 91.30 percent higher than in 1934 and the total for the industry shows 38.68 percent higher in 1939, the 1940 figure not being available, than the figure in 1934.

Q. Now, what, in general, do these data show, in your opinion?

A. Well, they show pretty conclusively to me that the industry has shown some additional growth in 1934 through 1939; that other pipe line companies which have [fol. 1071] been mentioned show a growth somewhat larger than the total industry in the period 1934 through 1940, but that the Panhandle Eastern Pipe Line Company shows a tremendous growth in that same period when compared to either the total industry or the other pipe line companies, so that there, again, I think that, and I use these statistics and this chart to indicate to me that the management of the company must have been alert during this period in seeking new markets and selling its gas.

Q. Is there any indication in these data or this chart that this growth on the part of Panhandle Eastern Pipe Line Company has come to an end?

A. I see no evidence of that at all at the moment, no.

Q. On the contrary, the trend would appear to be distinctly upward on a rapidly rising line, would it not?

A. From these data it seems to me that that is a logical conclusion.

[fol. 1072] In Chart No. 8, Exhibit 65, captioned "Operating Ratio of Panhandle Compared with Other Pipe Line Companies, 1934-1940," this exhibit is again divided into two sections, the left-hand section showing figures before taxes, the right-hand figure showing after taxes and both divisions being on a scale in percent of gross revenue, the scale running from zero to 80.

In the left-hand section before taxes, I show that the operating ratio for other pipe line companies was 58.9 percent in 1934 and gradually declined to a level of 51.3 percent in 1940.

The figures for Panhandle Eastern Pipe Line Company represented by the solid red line showed a decline from 58.2 percent in 1934 to 38.5 percent in 1940.

Q. This is before taxes, is it not?

A. This is before taxes.

Q. Yes.

A. Now, that exhibit indicates to me that here, again, the management of Panhandle Eastern is an efficient management because its operating ratio has not only shown a very favorable turn in the period mentioned, but is substantially below the average for the industry.

[fol. 1073] In other words, in 1940 it is a comparison of a ratio of 38.5 percent to gross for the Panhandle Eastern Pipe Line Company as against 51.3 percent for other pipe line companies, which indicates to me, fairly clearly, that there is an efficient management operating the company when contrasted with other pipe line companies as a whole.

Now, the right-hand division, however, shows a matter of further significance because that graph considers the same factors except that they are computed after taxes and here we see that for other pipe line companies the ratio was 65 percent of gross revenue in 1934, showed a slight decrease up until 1937 when after that time it began to increase and in 1940 was 66.7 percent.

Now, that represents, when contrasted with the trend on the left-hand side, the full effect of taxation upon gas pipe line companies, and I emphasize that because taxation, after all, is without the control of the managements and

they are subject to it and must pay it, regardless of their efficiency or inefficiency.

Now, in the case of Panhandle Eastern Pipe Line Company, as shown by the solid red line on the right-hand side, the ratio fell from 67.1 percent of gross revenue in 1934 to approximately 50 per cent in 1937 and, thereafter, showed an increase reaching 57.8 percent of gross revenue in 1940, so that one can see, if you would convert this information to a different basis, that in most of the cases apparently the gross revenues of the individual companies and Panhandle Eastern Pipe Line Company have been able to absorb tax increases but the net operating revenue has not.

In other words, the additional increases of taxation at this point are definitely continuing to eat into net operating revenue in spite of the fact that most of these companies are showing considerable growth.

Q. Is it known at the present time that taxes for 1940 and '41 would be higher than for 1940?

A. Yes, I think that so far as 1941 is concerned, the Revenue Act is already out and actually I believe it is in preparation now, being considered, the factors that would be influencing taxation for 1942.

[fol. 1075] Mr. Littman: Mr. Coffman, do the operating expenses which are reflected on your Chart No. 8 and in Tables 1 and 2 for Chart No. 8 include annual allowances for depreciation?

The Witness: Yes, they include that item.

By Mr. Wheat:

Q. Now, will you turn to Chart No. 9 and state what is shown on that chart?

A. On Chart No. 9 of Exhibit 65, captioned "Trend of Revenue and Expenses of Panhandle Eastern Pipe Line Company, 1934-1940, Inclusive," this chart is divided into four boxes, Box 1 showing gross revenue in the upper left-hand corner, Box 2 showing operating expenses before taxes in the upper right-hand corner, Box 3 showing

taxes, which is in the lower left-hand corner, and Box 4 showing net operating income after taxes in the lower right-hand corner.

These various boxes show two things; first, the left-hand scale in each case is in terms of millions of dollars, but in the case of the operating expenses, in the case of taxes, in the case of net operating income after taxes, there is a second scale which is in terms of percent of gross revenue, so that one, again, has to interpret properly the scales to be sure they are relating the proper scale to the [fol. 1076] proper item.

The gross revenue as shown in Division 1 in the upper left-hand corner, indicates that there was an increase from \$3,000,000 in 1934 to thirteen and a half million dollars, approximately, in 1940.

It can be seen that the point I have already made is actually true, namely, that although the company's growth in revenue was on one or two occasions slowed by business recessions, at no time did they show an actual decline in the period 1934 through 1940.

The operating expenses before taxes represented by the red bars in the upper right-hand box show that they increased from approximately \$1,800,000 in 1934 to \$5,200,000, approximately, in 1940. There has been there an increase in each year, notwithstanding some slowing down of gross revenue in 1938 because of the business recession.

The solid red line in that same box represents the percentage of the operating expenses to gross revenue, repeating the figure already given of a decline in that figure or operating ratio from 58.2 percent in 1934 to 38.5 percent in 1940 and there the percentage scale is given on the right-hand side.

The lower left-hand box, representing taxes, shows an increase in taxes each year from \$270,000, approximately, in 1934 to \$2,610,000 in 1940 and, percentagewise, to gross [fol. 1077] revenue, that represents an increase from 8.9 percent in 1934 to 19.3 percent in 1940.

Now, this, of course, merely supports the statement that I gave earlier in interpreting the figures before and

after taxes and the operating ratios, that the increases in taxes are such that in spite of substantial increases in gross, the increases in net operating revenue are going up in less proportion, because taxes are taking a higher percentage.

In the lower right-hand box is shown the net operating income after taxes, showing here \$1,000,000, approximately, for 1934, showing that the net operating income did decline by contrast with an increase in gross in 1938 because of the tax situation and it increased to \$5,700,000 in 1940; in percent of gross it rose from 32.9 percent in 1934, that is the net operating income rose from 1934 to a higher level in 1937 and then began to decline, reaching 42.2 percent in 1940.

Q. What does that show, in your estimation?

A. Well, it shows fairly conclusively that as the gross revenue and the net operating revenue before taxation of the Panhandle Eastern Pipe-Line Company continues to grow, a part of the revenue, and a larger part, is to be consumed by taxation according to the trend as shown in the lower left-hand box and, therefore, that has to be considered, it seems to me, pretty seriously in a case of this sort because the Government will be taking out a certain proportion in taxation which definitely now will be coming out of net income.

Chart No. 10 in Exhibit-65, captioned "Percent Earned on Invested Capital of Panhandle Based Upon Capital Structure." This chart is divided into two parts. The left-hand section shows invested capital, broken down as to net debt, preferred stock, common stock and surplus and that particular division is in terms of millions of dollars in a scale that ranges from zero to 80.

The right-hand division shows operating income, the bars representing net operating income and the solid red line representing the percent earned on invested capital, the scale running in terms of millions of dollars from zero to 10.

These figures are taken from the annual reports, the computation of percentage being our calculation of re-



[fol. 1079] lating net operating income to invested capital, both of which figures appear in the annual report to stockholders.

In the left-hand section it is shown that invested capital as represented by total capitalization rose from \$44,900,000, approximately, although irregularly, to \$59,400,000 in 1940 and the last bar in that section shows the average figure of invested capital for the period 1934-1940, both inclusive, at an amount of \$52,100,000.

Now, I might say in connection with that exhibit, as is shown clearly in the table supporting, which is marked "Table for Chart No. 10" at the end of Exhibit 65, we have computed the invested capital herein on the basis of using the net debt. In other words, that is the gross debt minus the various discount commissions and financing charges that were involved and the purpose for that was that in arriving at invested capital we believed that it was the only sound accounting procedure to use, which was to compare the figure with the actual amount of cash the company received and was invested in the business as against the gross figure, part of which was used to pay someone else for the services they rendered in making that item.

Trial Examiner: May I ask whether the computation included any invested capital of the subsidiary companies?

The Witness: This is the consolidated statement as shown in the annual report.

[fol. 1080] By Mr. Wheat:

Q. Well, Mr. Coffman, it includes any subsidiaries owned by the company during any of the particular years shown.

A. That is correct. If I had reviewed the history of the company, I would have stated there how the company was formed and what happened from one period to the next.

Q. You have that included in the first pages of this exhibit, have you not?

A. That is included in the full statement captioned "Synopsis of the History and Development of the Company" in the exhibit and the figures are the figures then



taken from the annual reports for each of the years shown or the registration statement which would give a figure. In other words, the first annual report actually, I believe, was prepared by the company in 1935, but in the '36 annual report figures were given for 1936. The '34 figure was one which was taken from the registration statement. All the other figures are directly from annual reports.

In the right-hand division of Chart No. 10 I show that the net operating income, which is represented by the red [fol. 1081] bars, increased from approximately \$1,000,000 in 1934 to \$3,700,000 in 1940 and show in the last bar in the division that the average for 1934-1940, inclusive, was \$3,700,000, approximately.

The comparison of the operating income, as shown by the red bars in the right-hand division, with the trend of the bars in the left hand, year by year, give the calculation which is captioned "Percent Earned on Invested Capital" and is represented by the solid red line which shows that the percent earned on invested capital, by this total capitalization method of computing invested capital, ran from 2.24 percent in 1934 to 9.62 percent in 1940 and that the average for the years 1934-40, both inclusive, was 7.11 percent.

Q. Now, you have shown all the data on which you based your Chart No. 10 on the table for Chart No. 10, have you not? A. That is correct.

Mr. Littman: I just wanted to ask you as of what date are these years shown on table for Chart No. 10?

The Witness: December 31, 19—whatever it was, of each year.

[fol. 1083] By Mr. Wheat:

Q. Mr. Coffman, will you turn to Chart No. 11, of Exhibit 65, and state what is shown upon that chart, and I think you could, by outlining in general and rather briefly, what is shown on these various charts and pos-

sibly proceed without quite as much detail as we have been having, although I do wish you would explain carefully each chart.

A. Chart Number 11 in Exhibit 65, captioned "Percent earned on invested capital of Panhandle, based upon net property, intangibles and working capital," purports to show exactly the same information as shown in Chart No. 10 of Exhibit 65, except that in Chart No. 11, invested capital is defined as net working capital and intangibles, including the gas sales and purchase contracts, and the net property after reserves.

The only difference is that in chart number 11, invested capital is based upon the property accounts, whereas in chart number 10, it was based upon the total capitalization of the corporation. So far as the figures are concerned, the average invested capital for the period 1934-1940, both inclusive, is \$52,070,680. There was no change in that. There were a few minor changes in individual years, but it didn't change the average.

Q. Well, the percentage earned on invested capital is the same?

A. The average return on invested capital is 7.11 percent for 1934—the 1934-1940 period, which is identical with the figures shown on Chart 10. I merely put it in both ways so there would be no question about selecting total capitalization, or property account.

Q. Now, and the detail of the figures from which chart number 11 is shown on the table for chart number 11, is it not?

A. That is correct.

Q. Mr. Coffman, will you turn to the table for chart [fol. 1085] number 11, and state where you obtained your figures for intangibles, and what those intangibles include?

A. Well, for each of the years, 1934 through 1940 inclusive, there is shown in the table for chart number 11 the detailed items which were included in the total figure shown in chart number 11 for the calculation of the total invested capital.

Now, among the items are property, plant and equipment, less retirements, renewal, depreciation and amortization reserve, thus showing the net property, plant and equipment account; the intangibles, including gas sales and purchase contracts, for 1940, were listed at \$2,051,434, and then there was in addition current assets, less the current liabilities, leaving the net working capital, which is shown in the table.

Now, I do not have as a part of the exhibit, the list of the various gas sales and purchase contracts, but such material was taken directly from the company's annual report, and is the amount which is therefore carried.

Q. And which is reported by the company for that item?

A. That is correct, for each of the years shown.

Q. You have simply taken the data shown on that report, and used it in the manner shown in the table for chart number 11, is that right?

A. And I might amplify that to say that throughout [fol. 1086] that entire study, that all the figures that I am talking about in that study either come from a recognized source, such as the Bureau of Mines, or Commercial and Financial Chronicle, or any quotations from recognizable sources, and all figures came directly from the annual reports.

I have had no figures given me directly by the management.

Q. Yes. You have made this study fully and completely as an independent study?

A. From the investors' point of view, using the sources available to the investors, in making such a study.

Q. And finding these figures in the annual report of the Company, you have used them, as shown on chart number 11, and on the table for chart number 11?

A. That is correct.

Mr. Littman: And you have not adjusted those figures in any way?

The Witness: I have not adjusted them in any way except where I have already commented, in one chart, for instance in calculating invested capital, we said we used

the net, which means we took the gross, minus the cost involved, to get net debt, because I think that is proper accounting—the proper accounting method of getting the invested capital.

And in another case, I have shown, and we will come to it shortly, a figure as reported, and then as I adjusted it, but all such adjustments are clearly marked, and the only [fol. 1087] one I recall mentioned up to date is the one about net debt.

Mr. Littman: Is the same thing true with all your exhibits; to wit, Exhibits 63, 64 and 65?

The Witness: The statement is correct that throughout all the exhibits, marked 63, 64 and 65, the information used therein has been taken from reliable sources, and has been clearly documented throughout, and we have not adjusted any figure, unless it is absolutely specified in the exhibit.

Mr. Littman: And that is true, is it, of the earnings figures which you have shown in these three exhibits?

The Witness: That is true, until such time as I indicate a change.

In other words, if there is no footnote or caption to the effect that there has been a correction, or alteration, they are as reported from the source to which it was attached.

By Mr. Wheat:

Q. Now, I think, unless you have something further to say with respect to chart number 11, we may start with chart number 12.

A. Chart Number 12, in Exhibit 65, captioned "Return to common stockholders of Panhandle Eastern Pipe Line—1934-1940", is divided into three boxes. The one in [fol. 1088] the upper left hand corner shows investment represented by common stock and surplus, and is given in terms of millions of dollars, with a scale from zero to 40.

The upper right hand box captioned "Dividend return to common stock holders," is in terms of millions of dol-

lars, with a scale range from zero to 3, and the lower box captioned "Per cent return to common stock holders," is in terms of per cent with a scale from zero to 10.

As shown in the upper left hand box, investment represented by common stock and surplus, increased from \$17,130,094 in 1934 to \$28,107,142 in 1940.

The average of such investment for 1934-1940 inclusive, was \$21,818,994.

The particular division shows a general increase throughout the various years.

In the upper right hand box captioned "Dividend return to common stock holders," it is shown that there were no dividends to common stock holders in the years 1934, 1935 and 1936.

In 1937, a dividend totalling \$364,326 was paid.

In the next three years, dividends were paid, but depending upon how one interpreted the declaration, we get an adjustment in the figures.

For instance, in 1940, in January, approximately the 15th as I recall it, a dividend was declared and I interpreted such declaration then to be based mostly on, or [fol. 1089] practically entirely on the 1939 earnings, and not what had happened in the year 1940.

So if I adjusted the dividend declaration of \$1.50 and put it back in 1939, as against 1940, the 1939 dividend would have been the red bar plus the dashed part on top, making a total of \$2,340,000 altogether, as against \$1,130,000 which is shown at the top of the red bar, which was the actual amount paid in the year 1939.

Naturally, if that adjustment is made for the 1939 figure, then the 1940 figure would be adjusted by a like amount, so that the dividend which actually totalled \$2,420,000 was adjusted for the \$1.50 declaration in January, and the total then paid would have been \$1,210,000.

However, I don't attach any importance to that figure, one way or the other, except to note it is rather odd to have a declaration in January of a given year, unless it

really applied to the earnings in the preceding year. It wasn't due to current earnings.

Q. In any event, it has no particular significance, except that it created a problem as to which year to put it in?

A. As to which year it should be allocated to. As far as any figures are concerned, looking at the average for 1934 to 1940, it will show there a \$790,000 payment per annum average for the period which, of course, washes out this adjustment anyway.

[fol. 1090] Then, merely converting the two sets of figures presented above to a per cent as shown in the box presented below, captioned "Per cent return to common stock holders," I show that the average return to the common stock holders in terms of per cent in the year—in the period 1934 to 1940, was 3.64 per cent.

Now it shows clearly in this exhibit that that portion of the capital supplied to the company which came through sale of common stock, that the purchasers of such stock received no return whatsoever in 1934, 1935, and 1936 and that for the entire period 1934 through 1940, they have to date received in dividends a sufficient sum to show them a yield return of 3.64 per cent.

Q. On the average?

A. On the average, which would indicate to me that a person investing [their] money in this particular type of risk might be willing in their purchase to tolerate a period of waiting for dividends, but certainly expects for the investment of that capital on the average to have a better yield than 3.64 per cent because that is not much better than what a first-class bond is selling for at the present time, and certainly the risk of such stock is much greater.

Q. As is shown particularly on your other study of investors' appraisal of risk?

A. Shown therein, and also later on in this study.

[fol. 1091] Chart 13, Exhibit Number 65, captioned, "New Tax Bill will Reduce Income Sharply, Computations based on Operations—12 months ended June 30, 1941."



In this particular exhibit, or chart, I took the most recent 12 months, as can be seen, to bring it down as close to the date of this analysis as I could make it.

The gross revenue for the 12 months ended June 30th, 1941, was \$14,336,448. The net operating income before taxes were \$8,823,092.

At this point, I make an adjustment on the figures, which is clearly indicated in Chart Number 13 of this Exhibit 65.

The next two bars, captioned "Taxes," I show the taxes based upon the Second Revenue Act of 1940 in the amount of \$3,008,117. If the taxes are recomputed on the basis of the Revenue Act of 1941, and that is certainly the basis upon which the taxes will be paid, the total tax would be computed at \$4,311,017.

The net operating income, therefore, has to be adjusted in line with the tax computations. The vertically hatched [fol. 1092] bar on the left-hand side, showing "Net operating income," shows \$5,814,975.

Q. After taxes?

A. After taxes, based upon the Second Revenue Act of 1940.

But the other bar showing \$4,811,075 is the net operating income figure after applying the Revenue Act of 1941, which again is the figure which will be used.

Q. That is the figure that would have to be used?

A. That is correct, yes.

Now, that is all based upon information again taken directly from the annual report, to get the current picture before us.

Q. Now, Mr. Coffman, when you say that is the figure that has to be used, the tax liability under the Revenue Act of 1941 has already become applicable, has it not?

A. That is correct.

It is obvious from the figures that I have discussed that the difference in taxes in one year, between the time the Sec-

and Revenue Act of 1940 came out, and the Revenue Act of 1941, that it makes a difference of approximately \$1,000,000 right now increase in taxes on this Company, which [fol. 1093] is a further support of the observation that I made this morning, that although the gross revenue of this company continued to go up, its taxes go up and eat into the net operating income, and there is to be a continued reduction in that, and it seems to me that is important in a study of this kind, because I don't believe that rate reductions could be continued at the same time tax rate increases were being continued, without there being a line some place that would have to be drawn, where you couldn't go any further with those two trends.

Chart No. 14, Exhibit 65, captioned, "Per cent earned on invested capital of Panhandle Eastern Pipe Line Company as of June 30, 1941," shows on the basis of the property and intangibles, that the invested capital as of June 30, 1941 totals \$61,216,031, as shown in the Company's report.

Now, that particular total figure was made up of net property, \$54,690,591, net working capital \$4,661,875, and intangibles, \$1,863,565.

The net operating figure shown in the next two bars are the same as those presented in Chart No. 13 of Exhibit 65, showing \$5,814,975 at the 1940 rates, and \$4,811,975 at the 1941 rate.

Q. What does the change of the application of the latter figure make in the per cent earned on the invested [fol. 1094] capital?

A. Well, it makes a decline of about  $1\frac{1}{2}$  per cent.

Q. What are the figures with respect to per cent earned on invested capital?

A. The per cent earned on the invested capital on the basis of 1940 tax rate would be 9.50 per cent, and that percentage is reduced when you apply the 1941 rate to 7.86 per cent.

Q. Again, I ask, is it necessary to apply the 1941 rate?

A. It is necessary to apply that rate.

Now, these charts, both numbers 13 and 14, in Exhibit 65, are again supported by tables at the end of Exhibit No.

65, marked "Tables for Chart No. 34" and table for Chart No. 13.

Chart No. 15, Exhibit No. 65, captioned "Per cent earned on invested capital of Panhandle Eastern Pipe Line Company, as of June 30, 1941," but here the invested capital is determined by the total capitalization of the company as against the net property and working capital.

Invested capital, on this basis, as of June 30, 1941, totalled \$61,423,853, which was represented by net debt of \$21,165,558, total preferred stock \$11,000,000 and total common stock and surplus of \$29,258,295.

[fol. 1095] Again, computing the net operating income at the 1940 rates, we have \$5,814,975, and giving effect to the 1941 tax rates, the net operating income is \$4,811,075.

Q. What are the per cents earned on invested capital?

A: The per cents earned on invested capital, based upon the 1940 tax rate, is 9.47 per cent, and giving effect to the 1941 rates, is 7.83 per cent.

Mr. Littman: May I inquire, the new tax rate that you speak of, does not apply to the last six months of 1940, does it, Mr. Coffman?

The Witness: What I have done is this, the figures that I have are net operating income for the last and closest twelve months, which is the twelve months from June 30, 1940 to June 30, 1941, and the way the earnings of the company are now going, it would appear that that was at least a conservative figure, or that the earnings for the full year of 1941 wouldn't be less, so the tax figure I have is conservative. If the earnings are higher, I will apply the 1941 rates and the rates will be higher, therefore the deductions for taxes will be greater.

Mr. Littman: You wanted to show what the effect would be if the present rate was applied to the last half of 1940, [fol. 1096] as well as to the first half of 1941?

The Witness: No, I wouldn't say it that way. What I am really trying to show is, if you had a set of earning fig-

ures of a certain amount for a twelve-months' period, which we actually have, and you apply to that period the 1940 rates, you get a figure. If that is a basis of comparison, you apply the 1941 rates. That shows the effect of the increased taxation immediately. I could have used a hypothetical situation, but this shows that on the same basis, the same base earnings figures, just by applying the 1940 and 1941 rates you increase your taxation \$1,000,000 so that it seems to me that it is one hundred per cent comparable and accurate.

By Mr. Wheat:

Q. And conservative rather than otherwise?

A. It is necessarily conservative.

Trial Examiner: I wonder whether your tax figures, prospective taxes, is in any way affected by the present high rate of earnings, and would be modified if those earnings were, through this proceeding, or for any other reason, reduced?

[fol. 1097] The Witness: Well, it seems to me there are necessarily two components to the problem.

You have in the first instance the base which is the taxable earnings base, from which to make a computation. Now, if that base should change, and if the two rates remain the same, it will necessarily be a change in the resulting figure, so if you reduce the earnings, and apply the same rates, the tax, the aggregate would be less.

On the other hand, if the earnings were greater, the taxes remaining the same—the tax rate remaining the same, the tax would be greater.

In the particular comparison here, since I am using the 1940 and 1941 rates, those two, for purposes of this study, they remain static, so that the only change for the moment you could get would be in the earnings changed, but in that connection, I think that it is important to note, as I have shown, I thought fairly clearly in one of the preceding charts, in Exhibit 65, the figures indicate as shown, for instance, on chart number 9, that the tax rates are getting to a point where although you have an increase in gross, the

tax very definitely eats into net, so I come to the conclusion from that combination of circumstances, that you can't continue to have increasing tax rates and lowering of income without arriving at a point where the Company could no longer maintain its efficiency or its credit. It seems to me impossible.

. . . . .

[fol. 1099] Mr. Littman: Do you mind if I ask one more question here, to clarify the situation in my mind?

Do these taxes to which you refer in these tax charts include all excess profits taxes levied by the Federal Government for National Defense?

The Witness: The figure for 1940 is the only one which includes a Federal Excess Profits Tax for an obvious reason.

The other years include the Federal Income Taxes, the State or Local and Miscellaneous Federal Taxes.

Now, in regard to the table for chart Number 9, which I have already explained, reference to that will give some answer to the question asked in regard to the breakdown of taxes.

In that table, I have a tax item broken down as to State, Local and miscellaneous Federal, and it shows from 1934 to 1940 an increase from \$270,204 to \$612,872.

That is just using round figures here for the moment, and it is a little better than two times, 200 per cent.

. . . . .

[fol. 1100] The Witness: Federal income taxes were not reported until earnings were sufficient to make it eligible for payment of \$230,000 in 1936, and \$1,436,598 in 1940, and in addition to which there was paid the Federal excess profits tax of \$561,000.

Trial Examiner: That necessarily is because the earnings of the Company were about 9 per cent during that same period, is that not true?

The Witness: That is true, because it qualified under the Act, under a certain bracket.

Trial Examiner: In other words, as your profits rise, so do taxes?

The Witness: That is correct, but so that my original statement won't be misunderstood, it was my impression that if taxes actually are already having a pertinent bearing on the reduction of income, then it seems to me that there is a delicate point some place along the line as to how far rate adjustments can be made. In other words, I don't see how this, or any other Company, for a prolonged period, can face increasing tax rates and decreasing sale rates for its commodities, without there being some point arrived at where it is detrimental to the management in discharging its public duty. It seems to me that can be worked out mathematically.

Trial Examiner: Even though the taxes are passed on as operating expenses?

[fol. 1101] The Witness: Well, I say that from the credit position of the company, the taxes come out first, and unless an investor may—assuming we are going to have private financing of companies from time to time, whenever new capital is needed—that investors will feel that the credit position of the company is changing adversely if the combination of these two factors make it such that you cannot see an adequate return and safety of principal for the money you otherwise might be willing to invest.

Trial Examiner: The factor you now define is equally applicable to all regulated utilities, is it not?

The Witness: Yes, I think so.

Trial Examiner: In this economic period?

The Witness: I think so.

By Mr. Wheat:

Q. Let's turn to chart 16.

A. Chart 16, in Exhibit 65, captioned, "Historical costs of debt capital of Panhandle Eastern Pipe Line Company,



[fol. 1102] "1930-1941." This shows in per cent by years the cost of debt capital indicating that in the early years beginning in 1930, it was equivalent to 7.20 per cent, that in 1937, it was reduced to something approximating 4.6 per cent, where it remained for the years 1937, 1938, 1939 and 1940, and because of refinancing, about February of 1941, the cost was then reduced to 2.74 per cent.

Now, the right-hand bar marked "Weighted average," which shows 5.17 per cent for the entire period covered, is weighted on this basis:

That there are a certain number of years covered from 1930 to 1941. I believe eleven or twelve altogether, so that 1941 gets a weight of 12, 1940 a weight of 11, 1939 a weight of 10, and so forth, back to the earliest year, getting a weight of 1, so I have followed that practice here of trying to give the greatest weight to the current conditions, and it shows for 1941, 2.74 per cent, but on the weighted average basis, 5.17 per cent, and it does indicate to me that the company here has been following a policy of attempting to reduce its cost of capital at strategic points.

Chart No. 17 in Exhibit No. 65, captioned, "Effect of 1941 refinancing of Panhandle Eastern Pipe Line Company," [fol. 1103] shows first in the printed matter in the upper left hand part, the present funded debt. That is clearly shown. I don't believe I need read it unless you desire it.

The schedule of debt retirement in the upper right hand box is in terms of millions of dollars, with a scale from zero to \$2,000,000.

It shows the maturity yield based on the net price to the Company, and shows how that is effected in the period in question, from 1941 through to maturity date of the bonds, November 1, 1960.

The lower left-hand box captioned, "Schedule of Outstanding Debt" shows how the sinking fund and retirement procedure would work in terms of millions of dollars on a scale of zero to \$30,000,000 from the present time,

to the maturity date of the bonds, showing they will be fully amortized at that time.

Q. What is the average annual interest cost?

A. The average annual interest cost of debt to-day is 2.74 per cent.

As shown on Chart No. 17:

Q. Chart No. 17,—that is right. The general effect [fol. 1104] of 1941 financing was to lower the interest rate on the long term debt?

A. That is correct, and brought it in line very definitely with current conditions, as I see them.

Chart No. 18, Exhibit No. 65, captioned "Historical costs of preferred stock capital of Panhandle Eastern Pipe Line Company, 1937-1941," shows the cost of such capital as 6 per cent in 1937, 7.66 per cent in 1938, as reported by the Company in its annual reports, 6 per cent in 1939, as adjusted for that \$1.50 which I have already discussed, as the dividend declared in January of 1940, would have made it 9.67 per cent, 1940 as actually reported, 9.67 per cent, making the adjustment back would have been 6 per cent, and the estimated 1941 figure of 8.45 per cent, and the weighted average on the same basis of weighting as mentioned in the costs of debt capital, 8.2 per cent.

Now, here again, these charts mentioned in Exhibit 65 are supported by the tables at the end of the exhibit.

[fol. 1105] Chart No. 19, Exhibit 65, captioned "Earnings-Price Ratios of Natural Gas Pipe Line common stocks—1937-1940,"—this exhibit is divided into four groups of bars; one group covering each of the four years mentioned, for each of the companies included which are shown on the bottom, namely, El Paso Natural Gas Company, Interstate Natural Gas Company, Memphis Natural Gas Company, Southern Natural Gas Company, Panhandle Eastern Pipe Line Company and an average.

To get these figures as shown in the table for Chart No. 19; at the end of Exhibit 65, I took the earnings per share for each of the companies mentioned for each of the years

mentioned. I then found the average high and low prices for each of the companies' common stocks for each of the years mentioned, and then took the relationship of the earnings per share to the average of the high and low price, to determine an earnings price ratio for each of the companies for each of the years, and from those figures, calculated an average earnings price ratio, so that to make [fol. 1106] the example clear, El Paso Natural Gas Company, shown in the table, reported earnings per share of 3.73 in 1940.

The average of its high and low price in 1940 was 33.94.

• The price, therefore, was 10.99 times the earnings for that year, and so on.

I followed the procedure in each of the years for each of the companies, thereby determining the following ratios, as shown in the chart itself.

Q. No. 19? A. No. 19.

In 1937, El Paso Natural Gas Company was 13.79 times.

Interstate Natural Gas Company was 9.90 times.

Memphis Natural Gas Company was 16.85 times, and, in the case of Southern Natural and Panhandle Eastern Pipe Line Companies, base figures were not available for prices in the years mentioned, and therefore, I could not make a calculation.

Q. I would like to have you again explain what you did, to get the earnings-price ratio, and again I would like to have you develop for the record the difference, the essential difference for such a study as you have made, between an earnings-price ratio and a price earnings ratio, [fol. 1107] so that we may be clear in connection with the testimony you are now giving with respect to these individual companies:

The Witness: Starting again with the figures in the table for Chart No. 19, the earnings for El Paso Natural Gas Company for 1940, were \$3.73 per share. The average high and low prices for 1940 was \$33.94 a share.

If the figure of \$3.73 of earnings per share is divided by the price, the average price, of \$33.94, instead of multiplying, we get 10.99 percent and that same correction would apply to anything else that I might have said, unless you want to have me restate the whole business.

Q. I don't care to have you do that. I just wanted to have the record perfectly clear, and on that matter, and I wish you would now, for the record, state the difference between an earnings-price ratio, which you have used and the price-earnings ratio, and why you have used the earnings-price ratio.

A. Well, in this particular case, I was taking the earnings per share and the average of the high and low price [fol. 1108] for the year in question, to determine what would have been, let us say, an earnings yield on the particular price of the stock, to get the total amount that was earned and which would be available, or a portion of it, for distribution.

Now, the other basis around would be to talk in terms of number of times earned a particular requirement was, but that would then relate to a dividend payment as against the total earnings that were available.

Q. Yes. Therefore, you have used the earnings price ratio in all instances, have you not?

A. Except where specified otherwise, and that is marked clearly.

Q. Yes. Thank you.

Now, will you go back to Chart No. 19, and explain that again?

A. In Chart No. 19, the figures for 1937 show that the earnings price ratio for El Paso Natural Gas Company were 13.79 for 1937, 14.08 for 1938, 10.6 for 1939 and 10.99 for 1940.

The figures for Interstate Natural Gas Company for 1937, 9.90, 1938, 10.02, 1939, 8.88, 1940, 8.67, and for the Memphis Natural Gas Company for 1937, 16.85; 1938, 16.24; 1939, 15.74 and 1940, 15.75.

In the case of the Southern Natural Gas Company and the Panhandle Eastern Pipe Line Company, data for 1937 [fol. 1109] and 1938 were not complete, so that the cal-

culations could not be made, but in 1937, Southern Natural Gas Company had 21.59 and for 1940, 20.13.

Q. All of these things you are reading are earnings in relation to price?

A. That is correct.

Q. And they are not times earnings? A. No.

The Panhandle Eastern Pipe Line Company for 1939 was 9.61, and for 1940, 13.55.

Then, taking all the figures for these companies, and striking an average, the average for 1937 was 13.51, the figures for 1938 were 13.45, the figures for 1939 were 13.28 and the average for 1940 was 13.82.

Now, I interpret these data to indicate that the figures shown in Chart 19 of Exhibit 65 indicate clearly what investors believe must be the fair figure for natural gas pipe line common stocks, or, to state it differently, they were actually the figures that were made during the four year period, 1937 to 1940.

Q. By the general experience of these securities in the Stock Market?

A. That is correct. That is correct.

Q. They show what investors actually have done, do they not?

[fol. 1110] A. That is correct.

Q. And those figures are not based upon any opinion of yours, but upon published data based on actual sales?

A. Arithmetical calculations from figures available.

Chart No. 20 in Exhibit No. 65, captioned "Current Earnings-Price Ratios of Natural Gas Pipe Line Common Stocks," shows for Interstate Natural Gas Company, Memphis Natural Gas Company, El Paso Natural Gas Company, Southern Natural Gas Company and Panhandle Eastern Pipe Line Company, first, the earnings per share in the upper left-hand box, and that scale is in dollars per share from zero to \$5.00; second the average market price, January 1, to August 31, 1941, shown in the upper right-hand box, which is in a scale of dollars per share from zero to \$50; third, the earnings-price ratio, in the lower left hand box which is in terms of earnings-price ratio from zero to 25%, and fourth, the per cent of earnings avail-



able for common stock in terms of per cent, ranging from zero to 100.

The earnings per share for the 12 months ended December 31, 1940, of Interstate Natural Gas Company, was \$2.07.

The earnings of the Memphis Natural Gas Company for the year ended December 31, 1940, was 69 cents.

The earnings for the twelve months ended June 30, 1941, of El Paso Natural Gas Company, were \$3.61.

For the Southern Natural Gas Company, for the twelve months ended June 30, 1941, \$2.04.

And for Panhandle Eastern Pipe Line Company for the twelve months ended June 30, 1941, \$4.21.

Those are shown in the box in the upper left hand corner. The average market prices for the interim period January 1 to August 31, 1941, as shown in the upper right hand box, in terms of dollars per share, was \$22.00 for Interstate Natural Gas Company; \$4.57 for Memphis Natural Gas Company; \$31.06 for El Paso Natural Gas Company; \$11.81 for Southern Natural Gas Company and \$36.50 for Panhandle Eastern Pipe Line Company.

The earnings-price ratio, which are shown in the lower left hand box were 9.41% for Interstate Natural Gas Company; 15.10% for the Memphis Natural Gas Company; 11.62% for El Paso Natural Gas Company; 17.27% for Southern Natural Gas Company and 11.53% for the Panhandle Eastern Pipe Line Company.

Q. Now, Mr. Coffman, what do these earnings-price ratios signify in your estimation?

A. In my opinion, they signify that investors, the same [fol. 1112] as I have described it in Chart No. 19, were requiring in the interim period, January 1 to August 31, 1941, the relationship of earnings to price that is shown in the various bars 9.41, the lowest, in Interstate Natural Gas Company to the highest of 17.27 for Southern Natural Gas Company, and I presume the variations are largely explained by the difference in risk from one company to another.

That is what the investors were attempting to appraise.



Q. That is what investors would attempt to appraise in any refinancing?

A. That is correct.

Q. Now, what is the lower right-hand box?

A. The lower right-hand box shows the percent of earnings available for common stock, and indicates the difference that may be caused by different capital structures.

For example, in the Interstate Natural Gas Company, 100 per cent of the earnings are available for common stock, which would mean that the capitalization of that company is all common stock. There are no bonds or preferred stocks.

In the case of the Memphis Natural Gas Company, there is either some preferred stock or bonds ahead of the common, so that all the earnings are not available for the common.

The El Paso Natural Gas Company, there is available for [fol. 1113] common stock, 80.85%, and still less for Southern Natural Gas Company, until we come to Panhandle Eastern Pipe Line Company, which has already been described as having bonds outstanding, preferred stock and common stock, so that of the total amount of earnings available for distribution to capital, only 58.41 percent in the case of Panhandle Eastern Pipe Line Company, is available for common shares.

I could add in regard to Chart No. 20 that one might note an omission of the Northern Natural Gas Company, but the reason that was omitted is because I set this up as a separate example because it is the most recent case of natural gas pipe line financing that I know about.

Q. And this bringing of Northern Natural Gas into focus in a separate chart, gives an impression, does it not, of what investors are now at the moment actually demanding?

A. It seems to me that it very definitely does, because the stock in this case is distributed, or, has been distributed early this year; it is only a few months back, and it is an actual test of what conditions are encountered by a corporation to secure private financing.

In Chart No. 21 of Exhibit No. 65, captioned, "Cost [fol. 1414] of financing Northern Natural Gas Company, common stock—offered to public on September 10, 1941," it is broken into two divisions, or three boxes, as a matter of fact.

The one on the left-hand side shows prices, commissions and expenses per share.

The upper right-hand box shows earnings per share for twelve months ended June 30, 1941.

And the lower right-hand box shows earnings-price ratio.

In the left-hand box I show the price to the public, which is \$31.40 ex a 60 cent dividend.

The underwriting commissions were \$2.35.

The expenses to the seller were \$0.32.

Making the deductions of those items from the price to the public gives a net price received by the seller, ex the dividend, of \$28.73 and would be the figure that would be logically included as the invested capital. The other will be the cost of financing.

The earnings per share, twelve months ended June 30, 1941, as shown in the upper right-hand side, shows the figures on two bases; first, \$3.68 per share of earnings, on a regular reported basis, but if those earnings were adjusted to reflect the increase in taxes under the Revenue Act of 1941, then, those earnings would be \$3.26 per share.

The earnings-price ratio below is shown on two bases, adjusted—shown as reported, and then shown for adjustment of 1941 tax rates, based on the price to the public before tax adjustments, 11.72 per cent, and after the tax adjustment, 10.38 per cent; and based on the net price to the seller before the tax adjustment, 12.81 per cent and after the tax adjustment, 11.35 per cent, so that here again it would seem to me that, as I interpret these data, that from an actual piece of financing in the market by a public utility, natural gas company, as recent as September of this year, it indicates that investors to be encouraged to make an investment in that type of security were requiring somewhere in the neighborhood of 12 per cent on

common stock to find it sufficiently attractive to encourage them, to make the dollar investment.

Q. Northern Natural Gas Company is quite comparable to Panhandle Eastern in respect to its operation, and is so generally recognized?

A. I think it is very comparable, yes.

Q. Does it, in your estimate, make a competent yardstick?

A. It seems to me the only yardstick, if you want to get to actual practices. If one wants to make the other comparisons that I have made of what the figures show for other companies, although they haven't been refinanced at the time, but their securities are being traded—but that is the next best, but I would rather work from tests such as this, than the other, than to take the other ratios alone.

[fol. 1116] Q. I take it that you believe that this is an actual yardstick which has been furnished you by very recent financing? A. Yes, I do.

Well, this chart No. 22 in Exhibit No. 65, captioned "Estimated current cost of financing common stock of Panhandle Eastern Pipe Line Company," summarizes to a large extent the preceding charts, and shows that the average of pipe line companies, based upon 1941 market prices, was 12.99 per cent, or in round figures, 13.00 per cent.

The Panhandle Eastern Pipe Line Company common stock showed 11.53 per cent.

The Northern Natural Gas Company, which I have just discussed, based upon actual public financing, and upon price to the seller, was 11.35 per cent, and for the purpose of calculations which I make hereafter, as I continue this study, I have taken the round figure of 12.00 per cent as representing what investors require, as a basis upon which they are willing to make new monetary commitments in this type of industry.

Q. And in respect to Panhandle Eastern Pipe Line Company?

[fol. 1117] A. That is correct, with particular reference to Panhandle Eastern.

Q. Now, that is an earnings return and not a yield return, is it not?

A. That is correct. You are exactly right. That is an earnings return.

It is not a yield.

Q. Not a yield at all? A. No, sir.

Trial Examiner: You have nowhere in your exhibits made a comparison between cost of money by common stock financing to the other utilities, either water or electric?

The Witness: With particular reference to outside issues like natural gas?

Trial Examiner: For the purpose of comparison with [fol. 1118] present estimated costs of financing the common stock in the pipe line or natural gas company field.

The Witness: Well, in Volume 1 and 2, that is Exhibits 63 and 64, which we had this morning, the comparisons are shown there for individual companies, and the different utility classifications, but there would be no example therein of recent financing actually, such as was afforded by the Northern Natural Gas Company.

All I have there is then the actual test of the ratios judged by market prices at the time of bond preferred and common stocks actually traded, but I had no examples of an actual piece of financing such as Northern Natural.

Trial Examiner: Have you shown earnings-price ratios in those tables to which you referred?

The Witness: The tables?

Mr. Wheat: You are referring now to what document?

The Witness: I am now referring to Exhibit No. 64.

In that particular exhibit, Appendix C I show the various divisions of the capital structure, but I take an all-round figure for the total. Now, you can't get the individual ratio specifically worked out because I was there considering the over-all capital, but the data are there from

which calculations could be made, but I have not made them.

By Mr. Wheat:

Q. Well, in other words, may I ask a question here? [fol. 1119] In other words, Mr. Coffman, a consideration of data contained in Exhibit 64 will enable anyone to develop earnings-price ratios for each of the companies involved; will it not, for each of the periods involved?

A. That is right. I didn't go to that additional trouble in this study because looking for the over-all appraisals, I took the bonds, preferred and common stocks, and I, as I described this morning, lumped them together to get one figure.

Mr. Wheat: Yes.

It may be, Mr. Examiner, that we may some time during this proceeding, present these actual figures worked out on the basis of data shown in Exhibit 64. I don't know how long it will take, or whether it will be of pertinence, but we will be happy to consider that and see whether or not it is necessary.

Trial Examiner: The method of presentation of the data in these exhibits as selected in the first place, three fields for comparison, it does not require proof that we are in a strained period from an economic standpoint.

The Trial Examiner has no idea of just how these conclusions presented by Mr. Coffman should be considered with relation to the whole field of financing. It is, of course, a well-known fact that stock financing at this period is difficult in any field, even the best.

It is a bond market, is it not?

[fol. 1120] The Witness: The bond market has been the strongest of any of the markets; that is right.

Trial Examiner: Also, it would seem that a comparison with the recent experience of the companies attempting to finance by common stock in other utility fields, at least, should be presented; and my inquiry was simply [ask] whether you presented it, and whether I might look in your exhibit for it.

The Witness: You can't. The basic material, most of it, is available, but the figure you look for is not specifically there.

I just wanted to make the observation that in Chart [fol. 1121] No. 19 is discussed this particular thing, although it is related to natural gas companies. Of course, covering four years would, to me, avoid the pitfall that one might encounter if any one year were difficult, but a four-year period, although it may not be long enough, nevertheless, would indicate that the conditions existing are somewhat of a longer term, consequently, than a momentary difficulty, that is, when we speak of the common stock, for instance, the stock market being weak and the bond market strong, it has now gone on for a period of years, during which period of time such a condition has existed, and that might be different if it was just a year or a few months.

Trial Examiner: Wouldn't it also be helpful to know the earlier experiences in the field of financing for natural gas pipe line companies through the sale of common stock? In other words, your industry is new. What relative change has there been in the cost of financing, taking into account economic conditions from the very beginning to date?

The Witness: We could easily make such a calculation, but because of trying to keep the study to a more current condition, I haven't done it, and I didn't intend to do that. We can do it. We have all the facts and figures in our files available for making such a study.

Trial Examiner: To me it was quite surprising you had obtained the present bond interest rate of less than 3 per [fol. 1122] cent in a field which I think some years ago many people considered to have been a speculative risk, and I wondered if there was a comparable, or similar change in the cost of money through common stock financing.

The Witness: Well, those figures could be very easily developed, but I can't give you the figures here because I haven't them in my study.



Trial Examiner: You will consider, Mr. Wheat, it is a notable fact a natural gas pipe line company has borrowed money at less than 3 per cent.

Mr. Wheat: I think it is an astonishing reflection of the efficiency of the management of the Company.

Mr. Culton: I might, in this connection, suggest that it would be difficult to get many companies of that character, because very few have been financed by common stock issues sold to the public.

Trial Examiner: I assume that is true.

Mr. Culton: That is the difficulty.

Trial Examiner: For the most part, it has been an owner-investment.

The Witness: That is right.

[fol. 1123] By Mr. Wheat:

Q. Would you now turn to Chart 23, and state what is shown on that chart?

A. Chart No. 23 in Exhibit No. 65, captioned "Continuing growth of Panhandle System, indicates future needs for new capital," and this chart is divided into four sections.

The upper left-hand section shows the pipe-line miles, gathering, main and lateral lines, as of December 31, of each of the years 1936 to 1940, both inclusive.

This scale runs from zero to 4, in terms of thousands of miles.

It shows that in 1937, there was 1,651 miles.

[fol. 1124] The Witness: (Continuing) In 1940 this had increased to, 2,374 miles.

In the upper right-hand section, captioned "Installed Horsepower of Compressor Stations as of December 31", for each of the years 1936 through 1940, all inclusive, the scale is in terms of thousand horsepower and ranges from zero to 100, indicating that the installed horsepower of

compressor stations increased from 43,300 horsepower to 80,100 horsepower between 1936 and 1940.

In the lower left-hand division is shown gross property as of December 31 for each of the years 1936 through 1940 in terms of millions of dollars on a scale from zero to 80, showing that the gross property was equivalent to \$46,600,000 as of the end of 1936 and increased through the years to \$64,900,000 at the end of 1940.

In the lower right-hand box is shown the annual increase in gross property for the years 1936 through 1940 in terms of millions of dollars, with a scale ranging from zero to 16, showing that in 1936 there were \$4,300,000 annual increase in gross property; in 1937, \$11,400,000; lesser amounts in 1938 and '39 and \$5,400,000 in 1940.

Or an average of four and a half million dollars for the '36-'40, both inclusive, period, so that interpreting that [fol. 1125] figure in line with materials shown in earlier exhibits it shows a striking growth in this company and conditions at the present time indicating that that growth may be continued for some time to come. It seemed to me reasonable to say that an average expectancy per annum of four and a half million dollars for additional increases in gross property was not unreasonable, so long as that growth continued.

Q. Well, in order to increase gross property a company such as this must have new capital, must it not?

A. Some place along the line it would certainly have to have new capital.

Chart No. 24 of Exhibit 65, captioned "Panhandle Eastern Pipe Line Company Invested Capital as of June 30, 1941," shows the various detailed items in the capital structure, including the various items of the long-term debt, the preferred stocks and the common stock and surplus.

It shows there the principal amounts or shares of each, the book value of each and the percentage to total capitalization, the net debt is equivalent to 34.46

percent of the total invested capital on a total capitalization basis, the preferred stock represents 17.91 percent and the common stock and surplus represents 47.63 percent, which percentages are equal to 100, or in terms of dollars amounts to \$61,423,853.

Those figures that I have read are taken from the first three columns presented in this particular chart.

In the second three columns of figures, I show what the market appraisal of this capitalization is. Using market prices for each of the securities outstanding, where such market prices were available, or using, as clearly marked in the footnote, "Prices Estimated. Sold privately in January, 1941, at 100 to several banking institutions and one insurance company," and so on, I have explained which price I have used throughout the individual figures.

I show that the market appraises the debt part of the capital structure at \$23,500,344 or the equivalent of 36.59 percent. It appraises the preferred stock at \$11,250,000 or 17.52 percent and the common stock and surplus at \$29,468,896 or 45.89 percent. The 100 percent total is equivalent in dollars, market appraisal, to \$64,219,240.

Now that to me indicates a very close approximation between the market appraisal, on the one hand, or \$64,219, [fol. 1127] 240, and the book value of \$61,423,853.

From studies that I have made of numerous other companies, it is seldom that one finds the appraisal made by the market of the total capitalization of a company approximating the book value and in this particular case it would indicate to me that the investors believe that the book value here must be an accurate figure.

No. 25 in Exhibit 65, captioned "Preferred Stock Unusual in Natural Gas Pipe Line Companies, Based on Book Figures as of December 31, 1940," is shown in terms of percent of invested capital with a scale from zero to 22 and covers Cities Service Gas Company, El Paso Natural Gas Company, Interstate Natural Gas Company, Memphis Natural Gas Company, Mississippi River Fuel

Corporation, Northern Natural Gas Company, Southern Natural Gas Company and Panhandle Eastern Pipe Line Company.

Q. In only two did you find preferred stock outstanding, is that not true?

A. Yes. In all the companies that I have just mentioned [fol. 1128] there were only two that had preferred stock outstanding and the one is negligible, in the case of El Paso Natural Gas Company, and the only other is Panhandle Eastern which has 18.52 percent.

Q. Well now, let me ask you, Mr. Coffman, in your estimation what is the significance to be attached to this particular chart?

A. Well, as I interpret the data contained in this chart, it indicates that preferred stock has not been considered a sound part of a capital structure in this particular industry, that preferred stock is generally not looked upon with too much favor, therefore, these companies have not any preferred stock outstanding except the two mentioned.

I further conclude, in view of these facts, that it might be wise if at some point along the line with the management of Panhandle Eastern, following its policy to make adjustments of its capital structure to the times, that it eliminate the preferred stock or otherwise refinance it.

Mr. Williams: Is your information such as to permit you to state whether or not these companies such as Cities Service Gas Company, Interstate Natural Gas, and so forth, are wholly owned subsidiaries?

[fol. 1129] The Witness: Are what?

Mr. Williams: Wholly owned subsidiaries. Is their stock held by some holding company?

The Witness: In many of these companies?

Mr. Williams: Yes.

The Witness: Not in all cases.

Mr. Williams: Will you state which ones are not?

The Witness: I would prefer to check that before I answer.

Trial Examiner: Your Exhibit 64 contains an appendix [fol. 1130] shewing a number of ownerships.

The Witness: That is right.

Trial Examiner: Including gas companies beginning at Statement F, 20 pages or less, which I believe answers the question which Mr. Williams has asked.

The Witness: That is right, but I can't answer it directly without referring to records.

By Mr. Wheat:

Q. We will look up Cities Service Gas Company.

A. Cities Service is one that is held by a holding company.

Q. How about Interstate Natural?

A. Interstate Natural Gas Company, as shown in Appendix B, page 3, Exhibit 64, had outstanding as of December 31, 1940 \$6,529,530 of common stock of which \$1,893,564 was held by the public and \$4,635,966 was held by affiliates. The stock therefore was not a wholly-owned subsidiary of a holding company.

Q. Well, what about the other pipe line companies shown on the Chart No. 25?

A. Of the other pipe line companies, namely El Paso Natural Gas Company, Memphis Natural Gas Company, Mississippi River Fuel Corporation, Northern Natural Gas Company, Southern Natural Gas Company and Panhandle Eastern Pipe Line Company, in only one case was all of the common stock held by a holding company. That case was the Mississippi River Fuel Corporation. Complete data referring to the ownership and the securities of these companies are shown in Appendix B of Exhibit 64. I might say, however, in order to clarify this part of the testimony that, as the chart shows, none of the natural gas pipe line companies with the exception of El Paso Natural Gas Company and Panhandle Eastern Pipe Line Company had any preferred stock in their capitalizations whether held by the public or by affiliates.

Chart No. 26 of Exhibit 65 captioned "Earnings Necessary to Maintain Credit Position of Panhandle Eastern Pipe Line Company" shows on the bar the invested capital based upon the capitalization as of June 30, 1941 which totals \$63,525,839, which total is made up of bonds in the [fol. 1131] amount of \$23,267,544; preferred stock, \$11,000,000; and common stock, \$29,258,295.

I then have presented in this exhibit the earnings required to maintain the quality.

Q. You mean the quality of this particular credit position?

A. To maintain the various classes of the capital structure. In other words, in the preceding exhibits I have already shown that the bond class of the total capitalization carried a rate of 2.74 percent, so that with bonds outstanding in the amount of \$23,267,544 with a rate or cost of 2.74 percent would require a certain amount of earnings to maintain that rate.

The preferred stock of \$11,000,000, which I have shown had a historical cost weighted such as to give the current conditions greatest weight at 8.45 percent.

That would require certain additional earnings and the common stock figure at 12 percent, which has already been discussed, gives a total of earnings that would be necessary to maintain these various groups of the capitalization of \$5,077,648.

Now, those various figures, I can refer to the specific exhibits. The 2.74 percent was shown in Chart No. 16 of Exhibit 65, and the 8.45 percent was shown in Chart No. 18 [fol. 1132] of Exhibit 65, and the 12 percent was shown in Chart No. 22 of Exhibit 65 and the result of this analysis indicates that if the investors require these various percents of earnings to attract capital in the division that may be considered, that is where it be a bond, a preferred stock or common stock, then this total capitalization of \$63,525,839 in the proportions here stated would mean that the management of the company would have to have earnings of \$5,077,648 to maintain the quality of those particular securities.



In Chart No. 27 of Exhibit 65, captioned "Earnings Necessary to Maintain Credit Position of Panhandle Eastern Pipe Line Company," the total invested capital is shown at \$63,775,839.

Now, the reason for that is that, as explained in the chart, I have assumed here the refinancing of the preferred stock by means of 50 percent bonds sold on a basis of three and a quarter percent and 50 percent of common stock sold on a basis of 12 percent, therefore, we would have a resulting capital structure in which there would be only bonds and common stock.

On that basis the 2.74 percent would increase slightly because of 50 percent bonds at a three and a quarter rate [fol. 1133] so that the bonds would then call for a 2.84 percent earnings base and the common stock continued at 12 percent would indicate that the management would have to have \$5,006,338 to maintain the present quality of these securities.

Q. When you say "proposed" on Chart No. 27, you mean, do you not, that this is an assumption on your part in order to obtain these data?

A. Yes, it really should be, probably "projected." It is my analysis. From the preceding Chart No. 25 I concluded that perhaps the preferred stock was not a logical part of a company in this particular industry and I have made an assumption here to see what could be done by way of putting it all in bonds and common stock.

Q. It is your conclusion that the management would have to have slightly over \$5,000,000 in order to maintain the quality of such securities as you have assumed on Chart No. 27?

A. That is exactly correct, yes, sir.

Q. Now will you turn to Chart 28 and state what is shown on that chart?

A. Chart No. 28 in Exhibit 65 is captioned "Over-all Cost of Capital to Panhandle Eastern Based on Ideal Capital Structure, Capital Structure Composed of 40 Percent Bonds and 60 percent common stock."

Here I have assumed a debt equivalent to 40 percent of [fol. 1134] the total capitalization on a 3 percent basis. There being no preferred stock and the common stock rep-

representing 60 percent of the total capitalization on a 12 percent basis would then give for the total capitalization 8.40 percent rate that the investors would require to maintain the present quality of the capital distributed, 40 percent to bonds, 60 percent to common.

Q. That is 8.40 percent of what?

A. That is the earnings which would be required to cover the particular securities satisfactorily enough to maintain the credit position in the minds of the investors.

Q. Yes. Now what are the figures that bring about the 8.4 percent.

A. Well, it is merely 40 percent at 3 percent basis and 60 percent at 12, which is 74 plus the 12 making 84.

Q. Yes, and you have previously testified how you reached those other percentages, have you not?

A. That is correct, they are already supported by our charts.

Q. And there is no supporting table for this chart, of course, because it is self-explanatory?

A. That is correct, yes, sir.

Chart No. 29 of Exhibit 65 is captioned "Dollars Needed [fol. 1135] Annually by Panhandle for Operations and Maintenance." It is the beginning of the part of this study wherein I am trying to consider the various component parts of the costs of operations plus the money income that would be needed to give a gross revenue figure that the management would have to have to maintain the efficiency of its present service, allow for return of the capital which is presently invested in the firm, maintain the credit position of the corporation so new financing could be done and otherwise enable it to discharge its duties to the public.

Q. Yes.

A. On the basis of the annual report, the actual 12 months ended June 30, 1941, operations and maintenance charges totaled \$3,196,797. Of that amount, operations accounted for \$2,902,353 and maintenance accounted for \$294,444.

The right hand column is entitled "Projected." I have merely added to the actual for the 12 months ended June

30, 1941 what I believe to be a reasonable allowance for higher operating costs in a reasonable future period.

Q. Is it not a fact, Mr. Coffman, that you have attempted to be highly conservative in using only a 10 percent increase in this item?

A. Well, I believe that that is true for a reasonable period because as we know, various costs, material, wages [fol. 1136] and other items are going up and we are informed by various Government officials that the trend is likely to continue in that direction for some time.

I believe it very definitely is true, yes, and I allowed 10 percent as being a conservative figure to alter the actual for 12 months which will not be the same amount even though the volume would continue the same for another year on the score that these costs will be increasing.

Q. And, Mr. Coffman, should it prove to be the event that costs go up more than 10 percent then your right-hand or projected column would be greater than is there shown on Chart 29, is that not true?

A. That is true.

Q. That would be true of all other charts which follow this and deal with similar subjects?

A. That is correct, yes, Sir.

Trial Examiner: Have you stated here what you include in operations?

The Witness: Well, in operations, that includes the wage cost, the material cost, all the miscellaneous charges that go in to make up operations, repairs, and so forth.

Trial Examiner: But not including depreciation and taxes?

The Witness: No, those are included later; those are [fol. 1137] shown separately.

This projected figure then totals, with the allowance of an increase of 10 percent for rising costs, \$3,516,000, which allows operations \$3,192,000 and maintenance \$324,000.

Chart No. 30 in Exhibit 65, captioned "Dollars Needed Annually by Panhandle for Taxes", shows in the left-

hand bar the actual figures for the 12 months ended June 30, 1941 which total \$3,008,117, of which \$2,359,100 was for Federal income and excess profits taxes and \$649,017 was for state, local and miscellaneous Federal taxes.

For reasons that have already been given in the study by differences in the second Act of 1940 and the 1941 Revenue Act, I have here made allowances for a further 10 percent increase in Federal taxes and on that basis get a total for the company of \$4,399,000, which is distributed \$700,000 to state, local and miscellaneous Federal, \$3,363,000 for Federal income and excess profits, and taking the additional amount of \$336,000 as being the amount of further increase over the higher rates in Revenue Act of 1941, making a total of \$4,399,000.

Q. Now, it is a fact, is it not, Mr. Coffman, that the [fol. 1138] state, local and miscellaneous Federal taxes are increasing in a much smaller ratio than are the Federal income and excess profits taxes?

A. Yes, sir, they have been up to date.

. . . . .

Q. Now is there anything further you wish to state about Chart No. 30?

A. Well, the only point again is the one I have mentioned in the study heretofore, namely, that the increased taxation does have a definite effect upon the net income available for distribution to the capital and at the same time, naturally, if there are changes in rates to the company that would influence the gross revenue.

And if the taxes are working on one end and the rate reductions are working on the other there is some point arriving where investors would not be interested any longer in this firm because it has so changed these ratios I have discussed that they would not feel warranted in putting up additional capital to finance any new requirements.

[fol. 1139] Q. Which new requirements you believe to be necessary as indicated by the history of the company?

A. Based upon the past experience for a number of years and the continued growth which can be seen with reason at this time, it would average at least four and half

million dollars a year, so that some place along the line some new capital will be required.

Q. Now, will you turn to Chart 31 and state what is shown on that chart?

A. Chart No. 31 in Exhibit 65, captioned "Dollars Needed Annually by Panhandle to Return Capital to Investors When Gas Reserves are Exhausted," deals with the item that has just been asked, namely, the provision for depreciation, depletion and amortization. The actual 12 months' figure ended June 30, 1941 totaled \$2,316,560.

I have increased that to \$2,551,034, which was made on the basis of an annual provision necessary to retire \$63,775,839 of invested capital, which is a figure already shown in the preceding exhibit, over a 25-year period which is the estimated life of the gas reserves I have used.

Q. You took this from the statement of Mr. Ralph E. Davis, quoted in a registration statement of the company, have you not?

A. That is correct, yes.

Q. You have made no examination of that?

[fol. 1140] A. No.

Q. You accepted that figure and used 25 years on that basis?

A. Throughout this study I took figures from recognized sources or the annual report and I have made no study of my own.

Q. On that basis you arrived at the figure of \$2,551,034?

A. That is right.

Q. Should it appear from a greater study that a greater amount would be needed for such provision, then that right-hand column would be raised accordingly. Is that not true?

A. That is true.

Chart No. 32 of Exhibit 65, captioned "Dollars Needed Annually by Panhandle for Current Capital Requirements, Bonds," actual figures for 12 months ended June 30, 1941 totaled \$1,030,003. Of that total, interest on funded debt less other interest deductions, net, amounted to \$723,468 and \$306,535 was for amortization of debt discount and expense.

The right hand column marked "Projected" shows a reduction to \$807,516 because of certain changes which produced savings through the refinancing in January of [fol. 1141] 1941, so that on the new basis the interest on the debt outstanding after January 1941, refinancing at that period would be \$540,625. Interest on the \$5,625,000 of new debt at 3.25 percent; if the preferred stock is eliminated as suggested in Exhibit 65, Chart 27, would amount to \$182,812 and \$84,079 would be attributed as amount necessary to amortize \$2,101,986 of debt discount and expense over 25 years, the estimated life of the gas reserves as taken from the source already mentioned.

Chart No. 33, in Exhibit 65, captioned "Dollars Needed Annually By Panhandle For Current Capital Requirement—Preferred Stock" presents similar information for preferred stock as was presented in Chart No. 32 for bonds.

The actual amount for the 12 months ended June 30, 1941 totaled \$1,388,480. Of that amount there was \$660,000 required at the regular fixed dividend rate. The preferred stock Class A happens to be participating and the maximum participation of this Class A accounted for \$728,480.

[fol. 1142] Because of the assumption I made that the preferred stock would be retired by raising new capital in the amount of 50 percent by bonds on a 3.25 percent yield basis and 50 percent sale of additional common stock on a 12 percent earnings basis, there would be no future requirement for preferred stock.

Chart No. 34, Exhibit 65, captioned "Dollars Needed Annually by Panhandle For Current Capital Requirements—Common Stock" shows the actual figure for the 12 months ended June 30, 1940 at \$3,396,492. This figure would become \$4,185,995 with the change in capital structure already noted. Of that total, \$3,510,995 would represent 12 percent earnings-price ratio on \$29,258,295 of common stock and surplus as of June 30, 1941 and \$675,000 would represent a 12 percent earnings-price ratio on the



\$5,625,000 of additional common stock to be sold to provide 50 percent of the capital necessary to retire the preferred.

Chart No. 35 in Exhibit 65, captioned "Dollars Needed Annually by Panhandle for Total Current Capital Requirements—Total Invested Capital," shows the actual figure for the 12 months ended June 30, 1941, total \$5,814,975; [fol. 1143] of which bonds account for \$1,030,003; preferred stock, \$1,388,480; and common stock, \$3,396,492.

Those figures have already been presented in the preceding charts.

The projected figure, therefore, assuming the present preferred is retired, would be a total of \$4,993,511 of which bonds would take \$807,516 and common stock would take \$4,185,995.

Chart No. 36 in Exhibit 65, captioned "Dollars Needed Annually by Panhandle to Provide Service to Customers, a Fair Return to Investors and Restore Invested Capital When Gas Reserves Are Exhausted," summarizes all this information and is based upon a refinancing of the preferred stock.

On the basis of these figures it indicates that the management would have to have for the purposes mentioned \$15,459,545 of which \$3,516,000 would be necessary for operations and maintenance, \$4,399,000 would be required [fol. 1144] for taxes, \$2,551,034 would be necessary to return the capital when the gas reserves are exhausted and \$4,993,511 would be necessary to maintain the capital requirements so that new capital could be secured when required.

Mr. Littman: May I inquire what gas reserves you are speaking of that are going to be exhausted? Will you tell us a little bit about that so that I will know what you mean?

The Witness: Well, the company is securing gas from gas wells and those gas wells are down in Amarillo and

Hugoton Sections, that are estimated at various lengths of life according to estimates made by various engineers and they have placed various life values upon those reserves and as reported in the S.E.C. statement it seemed that the average life of those reserves was in a 25-year period, so I took the 25 years as being a sound figure based upon such engineering estimates.

Mr. Wheat: Let me ask a question which may clear this up. May I, Mr. Littman?

Mr. Littman: Yes.

By Mr. Wheat:

Q. If it should appear that the prospective exhaustion of those gas reserves or any major part thereof would be within 25 years, then the amount which you have shown for the return on capital when gas reserves are exhausted [fol. 1145] would be increased, would it not?

A. That is correct.

Q. And vice versa, should it appear as a result of these hearings that the life of the reserves now owned by the company would probably be longer than 25 years, then that figure would be reduced, isn't that true?

A. That is correct.

Q. And that figure is based upon the assumption of 25 years made by you?

A. That is correct.

Trial Examiner: The total of \$15,459,545 is to be compared with an estimated earnings from total operating revenue. Now \$15,409,387 is for the current year; is it not, Mr. Wheat, shown in Exhibit 49?

Mr. Wheat: Well, I think that the figures have a comparative value, let us put it that way, which I think will appear in the general discussion which must result in this case.

Trial Examiner: Exhibit 49, Schedules 1 and 2, I think.

Mr. Wheat: Yes, I think there are figures there which ought to be compared rather closely with these figures of the witness. However, I would like to ask the witness to turn to Chart No. 37, which shows the present situation

[fol. 1146] based on the present capital structure and state what is needed in his estimates and on the basis of these studies, based on the present capital structure.

The Witness: Chart No. 37, Exhibit 65, captioned "Dollars Needed Annually by Panhandle to Provide Service to Customers, a Fair Return to Investors and Restore Invested Capital When Gas Reserves Are Exhausted, Based on the Present Capital Structure," would then show total dollars needed of \$15,520,855, of which operations and maintenance would require \$3,516,000; taxes, \$4,399,800, return of capital when gas reserves are exhausted of \$2,541,034, and to maintain the present capital requirements, \$5,064,821.

By Mr. Wheat:

Q. As has been shown on previous charts?

A. Yes, sir.

Q. Yes.

I think, Mr. Examiner, that possibly that figure would be more comparable than the one that you mentioned, but I assume that is a matter of argument which will come later and have clarification on the record by counsel, yes.

Trial Examiner: Yes, this, of course, you are unable to compare because it contemplates no new financing and takes the company as is.

[fol. 1147] Mr. Littman: I take it from your responses to Mr. Wheat's questions you are not vouching for any precise period as to when these gas reserves are going to be exhausted, are you?

The Witness: Well, all I am saying is that I have seen in the S. E. C. registration statements comments in regard to gas reserves and their length of life which was in terms of 25 years. I am not an engineer so I didn't make an engineering study, myself, neither did I have any engineering report given to me. I got the figure from a recognizable source.

Mr. Littman: From the registration statement filed by Panhandle Eastern Pipe Line Company.

The Witness: With the S. E. C., yes.

Mr. Littman: In other words, you assumed the period that you found in that statement as the basis for this chart?

The Witness: That is right, it was 25 years.

Mr. Littman: In other words, if it had been 100 years you would have shown the result on the basis of 100 years.

The Witness: If the S. E. C. statement had shown it, I would, yes.

By Mr. Wheat:

Q. Mr. Coffman, are the totals on the columns at the [fol. 1148] left hand sides of Charts Nos. 36 and 37, which are, respectively, \$15,459,545 and \$15,520,855, in your opinion and based upon your studies, the irreducible minimum dollars which would be required by this company on the two bases, one of refinancing preferred stock and the other of the present capital structure as shown on those charts?

A. Yes, sir, they are.

Mr. Littman: Based on the information that you received from various sources that you mentioned, that is, your answer to Mr. Wheat's question, I take it, is predicated on that information—

Mr. Wheat: (Interposing) I will stipulate to that, of course.

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[fol. 1150] P. McDONALD BIDDISON, having been previously sworn, resumed the stand and testified further as follows:

By Mr. Wheat:

Q. Mr. Biddison, will you please turn to page 9 of Exhibit 62 for identification and continue your statement with respect to the other production system structures?

A. The items shown at line 8 on page 9 of Exhibit No. 62 have been carried forward in the general summary of production system property on page 3 at line 6.

Q. Well, also on line 5 of page 2, have they not?

A. Yes, I have finished the description of the group of property classified as production system property and beginning on page 12 and continuing to page 44 I have set out my estimates of the amounts to be deducted for depreciation on transmission system property, page 12 being a summary of transmission system property.

Beginning on page 13 I have shown the amounts to be deducted for depreciation on transmission measuring and [fol. 1151] regulating station structures, these being the structures that house the measuring and regulating equipment.

Q. Well, for example, let's look at those production stations which I see you have listed under Texas, Kansas, Kansas local area and Missouri local area. What are those?

A. Those are the structures that house the measuring equipment to measure gas produced from wells owned by Panhandle Eastern Pipe Line Company.

Q. How did you arrive at the figures you have shown in Column C on page 13 for these items?

A. In my inspection of the properties of Panhandle Eastern Pipe Line Company, I inspected stations both in the Texas Panhandle field and in the Hugoton field and made notes of the condition of the structures which I saw.

I have noted the amount which I think should be deducted from cost of reproduction new for the amounts of loss in value that has occurred in those stations and have deducted in Column C the amount by which I think those stations have depreciated to arrive at the present value figures in Column D.

Now, the same procedure was adopted in connection with the other groups of measuring station structures, namely, purchase stations which embrace the structures housing equipment, measuring gas purchased; for the wholesale sales stations beginning at line 12, page 13; for the industrial sales stations, beginning at line 20; for the field [fol. 1152] sales stations, beginning at line 23; for the main line check stations, beginning at line 25; and for the main line regulating stations beginning at line 29.

I have thereby arrived at a total deduction for depreciation for structures in this group of \$11,137.11 which, deducted from the total reproduction cost new for the group in Column B of \$104,475.27, produces a present value total in Column D of \$93,338.16.

These figures have, in turn, been transferred from page 13 to line 4 on page 12.

Q. Now, will you turn then to page 14, which is headed "Other Transmission System Structures" and state what [fol. 1153] is included in that particular item?

A. In that item is included the residences and garages and site improvements at the compressor stations, the warehouses at Belton and Booneville, Missouri; at Centralia and Houstonia compressor stations and the residences at the Dana measuring station near the Indiana-Illinois state line.

For each of the structures listed in Exhibit No. 39 I have determined from my observations the amount by which these structures have depreciated or lost value and for each of those structures I have made a deduction in my working papers of those amounts and on page 14 have summarized those deductions.

The details of the individual structures are shown on pages 15 to 18, inclusive. Referring to page 15 it may be noted that for the structures at Hansford Camp, lines 2 to 16, inclusive, there is no deduction made for depreciation on structures.

Those structures were erected late in 1940. No ascertainable depreciation would likely be found upon a careful investigation of structures of so young an age.

I wish to call attention to the fact that my visit to Hansford station was at night and I was not able to make an investigation of the individual structures and have de-[fol. 1154] termined the zero amount for deduction for depreciation on the basis of the fact that they are new.

In the next item, Sneed Camp compressor station, embracing the items from line 17 to line 32, we will take for



example a warehouse at line 18. My observations indicated that this warehouse had lost about 5 percent in value and I have, therefore, deducted from the estimate of reproduction cost new 5 percent or \$216 to arrive at the present value figure of \$4,104 shown in Column D. Similarly with the other items for the structures at Sneed Camp and warehouse.

Now, I have followed a similar procedure for the balance of the items down to and including page 18 to arrive at a total deduction for depreciation on other transmission system structures of \$38,572.16 to produce the present value figure in Column D of \$344,348.43.

Q. Which is carried forward then to recapitulation on page 14, is it not? A. That is correct.

Q. And then to recapitulation on page 2? A. That is correct.

[fol. 1166] P. McDONALD BIDDISON, having been previously sworn, resumed the stand and testified further as follows:

[fol. 1168] By Mr. Wheat:

Q. Will you take up your discussion of the data contained in Exhibit 62 and your studies connected therewith at the point that you left off at our adjournment of yesterday?

A. The next item is transmission measuring and regulating station equipment shown on page 19.

That consists of the equipment used to measure and to regulate the pressure of the gas purchased and of the gas sold or otherwise delivered.

In Column C, I have shown for various classes of measuring and regulating stations the estimate of the amount to

be deducted for their loss in value and in Column D I have shown the result of subtracting Column C from Column B.

I have obtained on page 19 a total deduction for depreciation of \$39,350.84 and a present value of \$452,334.48, which I have carried forward to the summary of transmission system property, page 12, at line 8.

Q. And also your general summary on page 2, line 13, is that correct? A. That is correct.

Q. Now, Mr. Biddison, will you turn to page 19 of Exhibit 62 and, taking an example of this transmission measuring and regulation station equipment, state how you arrived at the deduction which you have stated should be made for depreciation? [fol. 1170]

A. As an example, we will take well measuring stations, Texas, line 2 on page 19. I made specific notes, during my inspection, on the equipment at 12 such stations. The equipment is uniformly in excellent condition, of first class appearance and the allowance for deduction for depreciation is simply that one indicated by judgment to allow for defects and for deterioration, which, under all probabilities, will exist to some degree.

I, therefore, deducted approximately 5 percent from the cost of reproduction new for this equipment to obtain the present value in Column D.

Q. Well how did you fix on 5 percent as an approximation?

A. Just as I have explained, as a judgment figure that I thought would be ample to cover the matter. There is no depreciation on it that can be seen more than the deterioration in the paint.

Q. What do these stations consist of, Mr. Biddison? What are they?

A. They consist of pipe, pipe fittings, either cast or welded fittings, valves, regulators, pressure gauges and gas meters. These latter may be either of the displacement type or of the orifice type.

The orifice type is almost universally used on stations [fol. 1171] for the purchase of gas in the field and it is

used on sales stations where the ratio of the peak rate of flow to the average rate of flow is not too great.

Q. Now, in all instances in connection with the study outlined on Exhibit 2, Mr. Biddison, is it a fair statement to say that the items which you have headed "Deduct for Depreciation" or "Deductions for Depreciation" represent your judgment of the amount of depreciation that has accrued to the date of your study in the particular items of property that you mentioned? A. That is correct.

Q. That represents your judgment as to the depreciation which now exists in the property?

A. That is correct.

Now, in a great many of these cases, the amounts shown are the result of a computation from judgment figures, so that the final figure is not always just a judgment figure; it is the result of the application of factors arrived at by applying my judgment to what I saw.

[fol. 1172] Q. Well then, will you turn to the item of transmission mains which I believe is the next main item. Is that true?

A. That is correct, beginning on page 20.

Q. And that continues, does it not, for several pages of your Exhibit 62?

A. Yes, specifically to include page 29.

Q. Twenty to twenty-nine, inclusive? A. Yes, sir.

Q. All right, will you state what you did in arriving at the sums which you believe should be deducted for depreciation with respect to transmission mains and state the main figures which you have arrived at?

A. The first group of transmission mains, well lines, is detailed on page 21.

Q. What are those well lines, by the way?

A. Those are the lines which connect the gas wells from which Panhandle Eastern takes gas in the gas fields into a subsequent group of lines called gathering lines. The well lines are the initial lines through which gas flows from the well into Panhandle Eastern's pipeline system.

Q. What did you find with respect to those lines?

[fol. 1173] A. With respect to well lines, I have found upon numerous examinations that the condition of well lines in any given field was generally about the same as that of the larger lines in that same field, therefore, a determination of the condition of larger lines in any gas field is a good criterion to apply to the condition of the smaller diameter and shorter length well lines.

In determining the amounts of money to be deducted for depreciation from such lines I have, therefore, given effect to the information derived on the gathering lines.

Q. Would you prefer to discuss this after you have discussed the gathering lines?

A. No, I think I can complete it right here as we go through and, as may be noted, on page 21, the amounts deducted for depreciation from well lines is substantially 10 per cent of their reproduction cost new.

I have arrived on page 21 at a total deduction for well lines of \$14,410.06 producing in Column D a present value figure of \$129,690.52.

Q. Which is carried forward, is it not, to page 20, line 4? A. That is correct.

Q. And that represents your statement, does it, of the deduction for depreciation which should be made with respect to these well lines?

[fol. 1174] A. That is correct.

The gathering lines are those lines connected to the outlet side of well lines which in a particular field collect and gather the gas for delivery to a central point. These lines are shown upon page 22.

Q. Exhibit 62?

A. Yes, sir. The statement of reproduction cost new on page 22 is not identical with the statement of reproduction cost new of those items in Exhibit No. 39.

Q. Why not?

A. Because in determining the amounts of money to be deducted for depreciation which has occurred in this property, it was necessary to make a separation between the re-

production cost of pipe and equipment and the reproduction cost of the protective coating that was on that pipe.

This was true, because in so many instances upon inspection, the only deterioration that could be found was that which had occurred in the paint only, that is, in a great many of the observations; although the value of the paint had almost entirely disappeared, there would still be [fol. 1175] no attack upon the pipe, itself, no evidence whatever of corrosion or of loss in value on the pipe.

Q. And did you personally examine these items and determine that fact? A. I did.

I have before me the notes of my observations upon the paint and its protective coating and upon structures made during the inspection, to which I have previously made some references.

Q. Now, will you proceed to your discussion of what you did with respect to the gathering lines?

A. For example, the field lines in Texas,—I made eight observations upon field lines in this group and found of those eight observations that at three points there were no indications of corrosion, whatever. At two there had been definite indications of attack upon the metal.

Q. What do you mean?

A. Well, that corrosion had marked the metal so you could see it and realize it was there, although it was so small that the depth could not be measured with the ordinary instruments used for such measurements.

Q. When you speak of corrosion, what type of attack upon the metal do you refer to?

A. Just ordinary rust.

Q. Ordinary rust by action of the air and the elements, [fol. 1176] upon the metal, is that true? A. Yes, sir.

At three locations, there was definite pitting of the metal. I examined the records of Panhandle Eastern Pipe Line Company of inspections upon pipe and protective coating; in the year 1940 there were 19 such inspections upon Texas field lines.

Combining those with the observations which I, myself, took, there were 12 observations at which there were no surface indications of rust whatever. There were four at

which there was definite surface attack. There were six with very shallow attack upon the metal and five with definite pitting on the pipe. Assigning to those instances where there were no indications whatever of corrosion a relative condition of 98 percent,—this being 98 percent instead of 100 simply because in all probability the pipe isn't perfect,—and 97 percent to those locations where there had been a definite surface attack, assigning 95 percent condition to those locations where there had been shallow metal attacks, and assigning 90 percent to those locations where the depth of pitting was measurable by the usual instruments produces a weighted condition for pipe at these locations of 95.77 percent.

I have, therefore, depreciated those lines by .5 percent.

Q. In all instances?

[fol. 1177] A. Yes, sir.

Now, with referen<sup>ce</sup> to the paint on those lines I have tabulated my observations, my conclusions, from my observations as to the condition of paint on these lines and have arrived at an over-all percent condition for paint upon these field lines of 34 percent.

There is some enamel upon some of these field lines, not a great deal, and I have used as a result of these conditions a deduction from Ace paint, that being a cold application, of 50 percent,—70 per cent.

Q. You mean 70 instead of 50?

A. Yes, 70 percent of the reproduction cost in order to obtain the present value, and for the enamel I have made a deduction of 50 percent from reproduction cost in order to obtain its present value.

Now the method by which I have obtained the deduction for depreciation on the gathering lines in Texas, is the manner which I have followed for the other gathering lines and I have thereby arrived at a total deduction for depreciation on gathering lines of \$195,613.33, producing a present value as shown on line 12, page 22 of \$3,065,772.66.

Q. Which you have carried forward, have you not, to line 80 on page 20? A. That is correct.



Now, on page 23 is shown what I have designated as a [fol. 1178] trunk gathering line.

Q. What is that?

A. That is a 22-inch line which originates at a point about two or three miles south of Sneed station in the Texas Panhandle field.

Q. Is that the place that some people refer to here as Windmill Junction?

A. It is; and runs to Liberal station which is in the State of Kansas and near the town of Liberal, east of the Hugoton gas field.

This line is carried in the company's records, in some places, as a main line designated "Line A-100," the "A" meaning that part of it is in Texas and it is the original line. The Oklahoma portion of it, I think, is designated as "B-100" but it is at least designated as a No. 100 line.

I have chosen to set it aside out of the main line system and designate it as a trunk gathering line.

Q. Why did you do that?

A. Simply to have it separated from the other property.

Q. All right, now will you state what you did in inspecting that line and what conclusions you have arrived at in connection with your Exhibit 62?

A. I have handled my observations on this line in precisely the same manner as that which I have described [fol. 1179] for the gathering lines.

Q. Well, Mr. Biddison, did you examine this line? If so, how did you go about it?

A. I designated locations at which holes were to be dug with a clearance of not less than 18 inches all around the pipe and upon inspection I went into this test hole and examined the pipe wholly around the circumference.

I had four feet of the protective coating, of whatever nature it might have been, removed so I could see four feet of bare pipe and two feet of the protective coating. I made notations as to the conditions of the coating and I made notations as to the condition and appearance of the pipe.

Q. In each instance?

A. Yes, and if there were pits I recorded pit depths measurements, dividing pipe off into four 1-foot sections where it was bare and recording for my own information the deepest pit on each one of those consecutive four 1-foot sections.

Q. How did you select these points for this pit digging or hole digging?

A. It was a purely random selection with the exception that where the company's records indicated that there was material deterioration in the protective coating or that pitting had occurred upon the pipe, I made sure that I had an inspection hole in that area.

[fol. 1180] Q. How did you find out where those points were?

A. By an examination of the records of the tests which the company regularly conducts for such determinations.

Q. How many of these holes did you say you had dug?

A. My last number is No. 116. I think there are one or two locations, however, where there is a sub-number in that connection, so there may be one or two additional locations above the serial numbering of my last page.

Q. It runs up to about 120 places, is that true?

A. That is correct.

Q. And did that give you a reasonable opportunity to inspect your line in question?

A. It did, but I used in addition to my own observations the records of the Panhandle Eastern Pipe Line Company's inspections of 1940.

Q. What were they?

A. They were inspections of precisely the same nature except that in the case of their inspections the length of pipe to be exposed was not specified in advance but was fixed largely by matters of expediency at the time inspection was made.

Some of these inspections were made in connection with repair work being done or with construction work being done and some were made solely and purely for the purpose of determining the effects of the time and the elements upon pipe protection and upon pipe, itself.

Q. Now, will you continue with your discussion of the deduction for depreciation which you have determined should be made in respect to trunk gathering lines?

A. I have handled this trunk gathering line in precisely the same manner as I have previously explained for gathering lines and have used in addition to my own observations on this line, six in number, 61 observations from the reports by Panhandle Eastern Pipe Line Company.

I have in that fashion determined a total deduction for depreciation for trunk gathering lines of \$136,026.48 producing, by deduction from Column B, the present value shown in Column D of \$2,494,557.01.

Q. As you have carried forward to line 14 of page 20?

A. That is correct.

Q. Now, turn, if you will, to the item headed "Main Lines" beginning on page 24 of Exhibit 62 and state what your methods and conclusions were with respect to the depreciation existing in those lines.

A. I think "Main Lines" might well be explained by taking Kansas Line 100 as an example. The amounts of [fol. 1182] money shown in Exhibit 39 for Kansas Line 100 have, in Column B, page 24, lines 1 to 13 of this Exhibit No. 62, been restated so that a determination might be shown of the loss in value of the protective coating as distinguished from the pipe, itself.

Therefore, at line 2 is shown for Kansas Line 100 the reproduction cost new in Column B of "Pipe and Equipment" and in line 3 the protective coating upon that pipe. In order that I might weigh out the observations which I had made in connection with the information available from the company's records of pipe inspection, I made up an alignment chart upon which I recorded the location of each of my own inspections and of each of the recorded tests in 1940 by Panhandle Eastern Pipe Line Company.

I recorded on these alignment sheets by the symbol "A" the fact that there were no indications of corrosion at that location.

I recorded by means of the symbol "B" the fact that there was definite surface rust, I recorded by means of the symbol "C" the fact that there had been shallow facial attack, and I recorded by means of a vertical line the fact that there was pitting and the [fol. 1183] height of that vertical line records the depth of the pits.

The information as to each of these observations is located upon the alignment sheet at the appropriate distance from the point of beginning.

I have then allocated over the length of the line these various conditions and laid them out. I have assumed in this allocation that if condition "A" existed at any one point and condition "B" existed at the next point of inspection, that condition "A" would exist half way to that next point and condition "B" exist half way.

Q. Do you believe that to be a reasonable method for the approach to this particular problem?

A. I do. It is the only one which I could conceive to give proper effect to the information that was available.

Q. Now will you proceed to explain that?

A. By assigning to the condition "A", which I have mentioned, a value of 99, to the condition "B" a value of 98, to the condition "C" a value of 97, and to the average of those conditions where pitting existed a value of 95, I find that for the section Liberal station to Greensburg station that the figure 97.65 represents the mean condition or that the pipe has depreciated 2.35 percent in that section.

In the same manner I find that for the complete line C-100 in Kansas, this being the original line, that the [fol. 1184] loss in value so determined is 2.01 percent.

I have, therefore, deducted for pipe and equipment 2.5 percent to produce the amount of \$185,752.78 shown at line 2, Column C.

Q. What does that represent, that figure?

A. That represents my estimate based upon these observations of the amount of value which has been lost in the pipe and equipment in this original Line 100 in the State of Kansas.

I produced, thereby, a present value in Column D, line 2, of \$7,244,358.54.

On paint for this line, I have assigned conditions for each observation which I made, these conditions representing in each case my judgment of the residual values remaining in that paint and by weighing out these observations on paint I arrive at the conclusion that on this line in Kansas 47 percent of the value of the paint is gone.

Q. How did you get 47 percent?

A. By weighing out these observations, weighing out their values, I arrive at the result that 53 percent remains and by the difference 47 percent is gone. I, therefore, deducted that percentage from the reproduction cost new of paint at line 3 on page 24 and produce thereby a figure of \$183,727.37 in Column C which being deducted from Column B gives a present value for the protective coating [fol. 1185] in line 3 of \$207,181.92.

I might call attention to the fact that the deduction for depreciation on paint in this instance is very closely equal to the deduction for depreciation on pipe and equipment.

There has been a substantial loss in value on the paint. There has been little loss in value upon pipe. The paint having lost value and being no longer an effective protection against corrosion and pitting, pipe will in the future lose value at a much more rapid rate.

Now, the total deduction on Kansas Line 100 as shown on this page 24, lines 2 and 3, is about \$378,500, something on the order of 5 percent of the reproduction cost new of pipe equipment and paint, although it is only about 2.5 percent on pipe, itself, and 47 percent on the protective coating.

Now, what did you do with respect to the river crossings on the Kansas line?

A. On the Arkansas River crossing, inspection was made of the river lines on the flats and those observations are the basis of the assignment of condition to the Arkansas River crossing as a whole.

I have deducted from the reproduction cost new on three river crossings, the Arkansas, the Neosho and the Osage

on Kansas Line 100, 5 percent as a result of observations [fol. 1186] made upon pipe at the Arkansas River crossing.

Q. In other words, you inspected pipe at the Arkansas River crossing and looked at the other situations as to the Neosho River crossing and the Osage River crossing, and assigned the same amount for depreciation on those, the same relative amount?

A. That is correct.

Q. On what ground did you do this, Mr. Biddison?

A. On the probability that they were in about the same condition.

Q. You saw no reason to doubt that fact, did you?

A. That is right. The property is maintained in a highly uniform state of good condition and repair, the whole property is.

Q. Now why do you not show paint from the Arkansas River crossing?

A. Well, my recollection is that there was none on there.

Q. Yes. There was paint on the other crossings?

A. That is correct.

Q. All right, what is your total, then, of depreciation that you have deducted from the Kansas Line 100?

A. The total which I have deducted is \$394,513.82, as shown in Column C, line 13, producing the present value, in Column D, line 13 of \$7,818,798.33.

[fol. 1187] Q. Well, what other main transmission lines are there in Kansas and what did you do with respect to them?

A. There is laid close to this Line 100 what is sometimes referred to as a loop line and officially designated as Line 200.

Q. What is a loop line?

A. As I have used the term it means a line laid parallel to another line; maybe for an equal distance and maybe for only a portion of the distance and interconnected. This particular loop line referred to is the Liberal loop; it begins at Liberal station and runs eastward. It does not run clear through to Greensburg compressor.



station, which is the first compressor station eastward from Liberal on Panhandle Pipe Line Company's system.

Q. But it connects with the Line 100 at some point westerly of the Greensburg station, is that correct?

A. They are interconnected at Liberal station and at the eastern terminus of the loop Line 200 and are interconnected about every eight miles in between.

Q. And are there several loops in Kansas along, and parallel to Kansas Line 100?

A. That is correct. Each loop line is commonly referred to by the name of the compressor station at its western terminus.

Q. Yes. Now you have shown those all on page 24, have you not, of Exhibit 62? A. Yes, sir.

Q. You have shown also certain river crossings of the loop lines, have you not? A. Yes, sir.

Q. Will you state whether the methods you have used in arriving at deductions for depreciation on Kansas Line 200 are similar to those used for Kansas Line 100 and, if not, will you state the differences?

A. As a result of inspections which I made, I reached the conclusion that on these loop lines the amount of depreciation which had occurred was so minute that it would be very difficult to detect by observation. I had anticipated that that would be the case before selecting the points at which to make observations.

In making the selections of these points to which observations were to be made, I made locations only upon pipe that had been laid in the looping program of 1937.

Q. Why did you take that?

A. Because that is the oldest pipe in the loop lines, in the 200 number lines.

Q. In other words, all pipe in these 200 number lines [fol. 1189] has been laid in 1937 or since that date?

A. That is correct. In 1937 or in '39, '40 and '41.

Q. Then, did you feel that what you did in that connection was a conservative method of arriving at your result? A. Yes, sir.

Q. Will you proceed?

A. I have assigned, on that basis, to the lines constructed in 1937 in the Liberal section, Greensburg section and Haven section, 99 percent as a figure representing

their conditions as respect to new or a loss in value on pipe of 1 percent. This applies to the pipe laid in 1937; for the balance of the pipe I have assigned a condition of 100 percent or no loss in value.

Q. Well, it is almost new, isn't it?

A. Yes, some of it was laid this year.

In the section between Olpe and Lewisburg, I have made a deduction of 2 percent from pipe laid in the 1937 construction program and that is true, also, of the pipe in the Houstonia section, that is, I have deducted 2 percent for depreciation of the pipe laid in 1937.

On all other of the loop lines, I made the deduction for pipe laid in '37 as 1 percent and other pipe has been depreciated none whatever.

In connection with river crossings on these loop lines, [fol. 1190] I have made a deduction of 3 percent on all river crossings as being an average figure of loss in value on those river crossings. These river crossings were laid in 1937.

In this manner I have arrived at the total deduction for depreciation on transmission mains shown in line 37, Column C, of \$457,897.07, which is deducted from reproduction cost new which produces the present value figure in Column D, line 37, of \$13,388,635.14. This latter figure has been carried forward.

Q. To line 16 on page 20, is that not true?

A. Yes, sir, that is correct.

Q. And that covers then the main transmission lines in the State of Kansas, does it? A. That is correct.

Q. Now, is there anything further that you wish to state with respect to your study of the existing depreciation in such lines?

A. No. The method I have used in connection with the Kansas lines on page 24 is the method used in connection with the other main lines, pages 25 and 26, inclusive.

Q. All right, will you state what the total deduction for depreciation is at which you arrived with respect to the Missouri main line, both Nos. 100 and 200, as shown, I believe, on line 32 on page 25?

A. The amount of deduction as shown in Column C is [fol. 1191] \$344,234.86, producing a present value figure in Column D, line 32, of \$8,435,603.79.

Q. As carried forward to line 17, on page 20?

A. That is correct.

Q. In your recapitulation of transmission main property?

A. That is correct. And on this same page 25 the deduction for depreciation on Mississippi River crossings, shown on line 40, is \$49,228.54 and the resultant present value figure, \$396,599.70, are forwarded to page 20 at line 18. From page 26 the Illinois line shown at line 24 with a deduction for depreciation of \$205,898.84 and a present value of \$6,116,914.95 is carried forward to page 20 at line 19, and the main lines in Indiana shown at line 28 on page 26 with a deduction in Column C of \$31.19 and a present value of \$630.60 is carried forward to page 20 at line 20.

Q. Now, Mr. Biddison, what is the total deduction for depreciation and your figure of present value for the main lines of the company, the main transmission lines of the company over all?

A. For main lines the total deduction for depreciation, as shown on line 19, of page 26, and as forwarded to line 21, of page 20, is \$1,057,290.50 and the present value resulting is \$28,338,384.18.

[fol. 1192] The next item is that of lateral lines, beginning on page 27 and continuing through on page 28. The deductions for depreciation shown in Column C are arrived at for these lateral lines in the same manner as I have previously explained for main lines and the sub-totals for the various states shown on those two pages have been carried forward on to page 20 at lines 23, 24, 25 and 26 and the totals for lateral lines from line 10 on page 28 have been carried forward to page 20 at line 27.

[fol. 1193] Q. Will you state what those totals show?

A. The deduction in Column C is \$307,488.62, producing a present value of \$4,343,955.44.

Q. Now, Mr. Biddison, is there anything in connection with what you have done in respect to these lateral lines

which differs and, therefore, should be explained from what you did in connection with the main lines?

A. [No, the method is the same and I have used in connection with the lateral lines the information in the records of Panhandle Eastern Pipe Line Company of their regular pipe inspections.

I did not, however, on the lateral lines weigh out the observations on an alignment chart nor did I have observations upon all lateral lines, but have assigned to lateral lines in the various states the condition figure determined from the lines which were examined.

Q. You believe that to be a reasonable method for arriving at the conclusion to which you have arrived?

A... I do.

[fol. 1194] A. With respect to the local area lines I wish to point out that with regard to this system there is a group of lines which I have referred to as permanent lines shown in line 2, page 29, which, insofar as one can predict the future, seem to be lines which will be maintained in operation by Panhandle Eastern Pipe Line Company regardless of the future life of gas production in the local area.

They are transmission lines which feed communities in this area and from this area. They are what would be called in an ordinary classification for a natural gas utility, based upon this local area, their main lines in the transmission system.

To these lines I have made a deduction of 25 percent of their reproduction cost new.

Q. How did you arrive at that figure?

A. That figure is purely a judgment figure based upon general knowledge of conditions in that area. I did not make specific examinations of those lines.

Q. What is the figure you arrived at?

A. The deduction as shown at line 2, Column C.

[fol. 1195] Q. Page 29?

A. Page 29, yes, which is \$153,009.27, resulting in the present value of \$459,027.81.

Another classification of lines in this area is the gathering lines. These lines are of a less permanent nature and as a matter of judgment I have deducted from their value, because the producing area has been heavily depleted of its gas reserves, 60 percent.

The amount of deduction is \$700,536.75, resulting in a present value of \$467,024.49.

Q. As shown on line 6, page 29?

A. That is correct.

Q. Are there other types of lines in this local area system?

A. The third class of lines are the well lines. These well lines are connected to individual wells whose future life is short.

I have made a deduction for depreciation upon these lines based, not upon their physical condition, but upon prospective obsolescence, upon depletion of the reserves and I have deducted 80 percent of their value from reproduction cost new. The amount of the deduction shown on line 14, page 29, is \$78,466.43, resulting in a present value of \$19,616.60.

Q. Will you please now state the total with respect [fol. 1196] to the local area lines?

A. The total deduction and total present value, as shown on page 29, line 15, for local area lines and carried forward—

Q. (Interposing) To line 32 on page 20?

A. Yes, to line 32 on page 20, is for deduction \$932,012.45 and for resultant present value \$945,668.90.

Q. Will you now please state the total figures which you have arrived at with respect to transmission mains?

A. The total deduction, as shown in Column C, line 33—

Q. (Interposing) Page 20?

A. Page 20, is \$2,642,841.44, with a resultant present value of \$39,318,028.71, which figures have been carried forward.

Q. To line 14 on page 2? Is that correct?

A. That is correct.

On page 30 is shown a summary of the reproduction [fol. 1197] cost new, deduction for depreciation and present value for compressor stations.

The total deduction for depreciation for compressor stations as shown at line 18, Column C, page 30, is \$628,607.30, with a resultant present value of \$9,135,536.30.

Q. As carried forward to line 15, page 2. Is that correct?

A. That is correct.

Q. Now, will you please discuss this item of compressor stations, using such examples as you deem pertinent to explain what you did and how you arrived at this conclusion.

A. The determination of the deduction for the individual stations is shown on subsequent pages 31 to 42, inclusive.

Q. Of Exhibit 62?

A. Yes, sir.

Upon my inspection trip over this property I made notations of the condition of various items of this property. The largest single items in compressor stations, as to value, are the main compressor units.

Taking Sneed Station as an example, on page 31 at line [fol. 1198] 2, are shown the main compressor units at a reproduction cost new of \$270,346.72, with a deduction for depreciation of \$19,600.14 and a resultant present value of \$250,746.58. This is a deduction on these units of 7.25 percent.

Q. How did you arrive at that figure?

A. I have estimated that these units could operate a total of 325,000 engine hours, each. As of the close of June 1941, one of these units had operated 29,500 hours. One of them had operated 29,700 hours. One of them had operated 30,400 hours. One had operated 4,300 hours.



If we estimate the depreciation to be in proportion to the engine hours operated—

Q. (Interposing) You believe that to be a reasonable method?

A. With some qualifications.

Q. Yes, will you state those after you have concluded?

A. If we estimate that depreciation has occurred in proportion to the engine hours operated, then these four units, by virtue of the engine hours which they have operated have lost 7.22 percent of their value.

I have deducted 7.25 percent. I would like to explain that an inspection of these engines shows little in the way of depreciation to have actually occurred upon them. The engine which has operated 4,300 hours, so far as one can tell by its appearance, is in the same condition as the [fol. 1199] one which has operated 30,400 hours.

I reached the conclusion from an examination of records of wear upon pistons, upon cylinders and upon rods that unless some other damage ascertainable by inspection existed that it was reasonable to depreciate these engines on the basis of the engine hours which they had operated, predicated upon 325,000 total engine hours. For engines of some other make or size, I would predicate their life upon a different number of total engine hours.

Q. How did you arrive at the total engine hours for the gas-driven engine compressors at this Sneed compressor station?

A. That is a matter of judgment. Three hundred twenty-five thousand hours is about 40 years of continuous operation. I know of units that have been maintained in operation for comparable periods, not continuous operation, but I think it is possible that if use be had for this class of equipment that it can be kept in operation for some such periods.

We are going to have to have several generations of experience with equipment of this sort before anybody can say what the average life of one of those units is.

Q. At any rate, they have a long life, do they not, as compared with many types of machinery?

A. They do.

[fol. 1200] Q. And the figures you have given represent your best judgment after inspecting them with care, is that correct?

A. That is correct.

I would like to point out while I am on that subject that these engines are 24 x 36 units, 1300 horsepower. At Liberal station the units are 21½ x 36, 1000 horsepower each. I have assigned to them a total possible life of 350,000 engine hours.

Q. Why?

A. Because my experience with that particular type of engine is that it is a smoother running machine, some of which are now operating after some 30 years of use and are in good condition today.

Q. Still operating? A. Yes, sir.

To the main units at Olpe, Centralia and Pleasant Hill stations, and at this Olpe Station, which are 24 x 36 units, 1300 horsepower each, I have assigned total lives of 300,000 engine hours each and to the main units at Hansford, which are vertical high speed, 600-horsepower units, I have assigned a life of 200,000 engine hours each. I have also assigned that life to the 600 horsepower units in Tuscola station.

Q. Do you believe these assignments of life are reasonable, based upon your experience?

[fol. 1201] A. Yes, sir.

Q. And what have been the general results of the study you have thus made?

A. The general results of the studies I have made in that fashion on these main compressor units is that for the Hansford units installed last year I have made a deduction of 1.25 percent, for the Liberal units I have made a deduction of 7.5 percent, for the Greensburg units I have made a deduction of 4.5 percent, for the Haven units of 5.5 percent, for the Olpe units 5 percent, for the Lewisburg units 6.5 percent, for Houstonia units 5 percent, for the Centralia units 5.75 percent, for the Pleasant Hill units 4.25 percent, for the Glenarm units 5 percent, for the 1300-horsepower units at Tuscola 5 percent, for the small vertical units at Tuscola 2.25 percent. These percentages are

rounded figures, in general slightly over the calculated figures.

Q. Is it a fact that these large compressor units are the primary items in value of these compressor stations?

[fol. 1202] A. Yes.

Q. And in the items of equipment contained at the compressor stations?

A. Yes, that is true.

Q. Now, will you turn back to page 31 for a moment, headed "Sneed Compressor Station?" and state whether all of the other items contained on that page are items of equipment or buildings or machinery used in connection with the operation of these main compressor units?

A. That is correct.

Q. And will you state the figures you arrived at with respect to the total property at the Sneed compressor station?

A. By applying to the other individual items, that is other than gas engine-driven compressors, percentages of value to be deducted for depreciation sustained, I have arrived at a total deduction for Sneed compressor station as shown at line 45, Column C, of \$45,839.17, which produces the present value figure in Column D of \$605,118.71.

Q. Carried forward to line 1 on page 30, is that true?

A. That is correct.

Q. Let me ask you whether the methods which you have just stated with respect to the Sneed compressor station and the buildings and apparatus there contained are the [fol. 1203] same methods which you followed with respect to the other compressor stations of this company?

A. They are.

Q. As listed on the following pages of this exhibit, to wit, 32 to 42, inclusive?

A. Yes, sir.

Q. Now, will you state what the total deduction for depreciation is which you have arrived at and shown on page 30 for all the compressor stations of this company?

A. The total deduction which I have arrived at for compressor stations shown on line 18, page 30, is \$628,607.30 with a corresponding present value of \$9,135,536.30.

Q. Now, that includes, does it, the following stations, to wit, Sneed compressor station, Hansford compressor station, Liberal compressor station, Greensburg compressor station, Haven compressor station, Olpe compressor station, Lewisburg compressor station, Houstonia compressor station, Centralia compressor station, Pleasant Hill compressor station, Glenarm compressor station, Tuscola compressor station, Sneed dehydration equipment, local area compressor stations consisting of Wea compressor station, Rantoul compressor station and Dodson compressor station?

A. That is correct, and with reference to the last three, they being the compressor stations in the local area, I have depreciated them down to what I estimate to be their sal-[fol. 1204] vage value.

Q. So that you have very little left of present value for them?

A. That is correct, I have 10 percent remaining for Wea, 10 percent remaining for Rantoul and 20 percent remaining for Dodson.

Q. And why did you depreciate these to such a large degree?

A. Because of early obsolescence caused by depletion of gas supply in the local area.

Q. Yes, and are the total items with respect to compressor stations, which you have just read, carried forward to line 15 on page 2 of Exhibit 62?

A. They are.

Q. There is one other item under your heading of "Transmission Property" and that is the "Other Transmission System Equipment"; state what that is and where it is shown on Exhibit 62 and the amounts you have arrived at for deduction for depreciation.

A. The item is shown on page 43.

Q. What do they consist of, in general?

A. Some boarding house equipment, some miscellaneous stuff, the cattle guards in the gas fields, fence gates in the gas fields, the pipe racks along the transmission lines for holding pipe to be used in emergency repair work.

[fol. 1205] Q. And do you also include the equipment on those pipe racks?

A. And the equipment on those racks.

Q. All right, now, Mr. Biddison, what is the figure you find for depreciation in this miscellaneous group of items and how did you arrive at it?

A. The figure found to be deducted for depreciation on this equipment, and that is shown on line 16, is \$11,936.13, producing a present value of \$116,721.36.

Q. As carried forward to line 16 on page 2?

A. That is correct.

Mr. Williams: On line 15, page 43, there appears the item "Equipment on Pipe Racks."

Mr. Wheat: Yes.

Mr. Williams: My assumption is that that is not material and supplies, but I would like to be certain of that.

The Witness: That is not in the material and supply account and the amount of that equipment was determined by a field inventory which I had taken in connection with [fol. 1206] the preparation of my estimate of cost of reproduction cost new, Exhibit No. 39.

Mr. Williams: Will you state, generally, why you consider that a proper inclusion in the rate base instead of including it in operating expense? That is the equipment on the pipe rack.

The Witness: Well, it could not under any conception of accounting be an operating charge. Now, it could have been carried in their stores account, but it wasn't and isn't. It is material which they own, have on hand, it is there for the purpose of emergency use and it is not carried in stores account because in emergencies the operators want to be able to take that material and use it any place any time that it is needed, without going through the formality of requisitions and transfers in order to get it out of stores.

By Mr. Wheat:

Q. Isn't it just exactly the same with respect to the pipe line and just as much a part of the pipe line as a spare tire is that is carried on an automobile?

A. Certainly it is.

Q. And isn't it, in essence, that type of property?

A. The pipe, as a matter of fact, on their books, this equipment on their books has been charged to investment. I have it in investment, but I do not have the investment as [fol. 1207] part of the pipeline. I separated it out.

Q. All right, now, Mr. Biddison, will you turn to page 44 and tell us what is shown there?

A. Panhandle Eastern Pipe Line Company, in order to offset the effects of corrosion upon steel pipe, has in the last few years at locations where corrosion was making itself evident, installed electric generators to neutralize the current flowing from pipe to ground and thereby prevent corrosion and pitting.

This equipment is referred to as cathodic protection equipment. Some of it is windmill driven, some of it is driven by gas engines.

Q. How much depreciation did you find in that item on that account?

A. I found as a result of observation and as a result of information derived from company records that there should be deducted for loss in value on this equipment \$6,486.65, which results in a present value of \$33,289.79, as shown, respectively, in Columns C and D at line 18, page 44. Those amounts have been carried forward to line 11 on page 43 and incorporated with other transmission system equipment.

[fol. 1208] Q. And which has been carried forward to line 16 on page 2?

A. Yes.

Q. All right, now, Mr. Biddison, what have you to say with respect to the Liberal gasoline plant? What did you do in arriving at the deduction for depreciation and what were your methods?

A. I think, Mr. Wheat, before I pass on to that I should explain with reference to page 12.

Q. All right.

A. That with respect to transmission system land and transmission system rights-of-way, lines 1 and 2, I have



made no deductions for depreciation on those two items. Depreciation has not occurred in land nor right-of-way.

Now, with reference to Liberal gasoline plant, that is shown on page 45 of Exhibit 62, to the individual items of reproduction cost new, as shown in Column B on this page, I have applied percentages representing the proportions of value which I estimate to have been lost in those items due to wear and tear and to all causes of depreciation to produce the individual amounts to be deducted for depreciation shown in Column C and through those deductions have obtained the individual items of present value shown in Column D.

[fol. 1209] Q. These are based, are they, on your judgment based on an inspection of this property?

A. Yes, they are.

Q. What are the items, what is the amount?

A. The total to be deducted for depreciation, as shown at line 40, is \$37,690, resulting in a present value of \$583,820.23.

Q. As carried forward on line 19, page 2, is that correct? A. That is correct.

Q. Now, will you state the figures with respect to the total transmission system on line 17 on page 2? I don't think that has been stated here.

A. I have previously explained the derivation of the individual items. On page 12, this being a summary of transmission property at line 13, Column D. I arrive at a total deduction for depreciation of transmission system property of \$3,372,444.98, with a resultant present value in Column D of \$50,794,738.64, these figures being the ones carried forward to line 17 of page 2.

Q. Thank you.

Now, will you turn, Mr. Biddison, to page 46 of your Exhibit 62 where, under the heading of "General System Property" you have included certain items. Will you state what those items are, where the details are shown in [fol. 1210] the exhibit, and what your methods were and what your general deduction for depreciation was?

A. The first item on page 46 is that of "General Office Equipment." From this I have deducted 15 per cent of its reproduction cost as a measure of the depreciation that

has occurred in that property; the amount of the deduction is \$11,712.35 and the resultant present value is \$66,370.01. There are no details subsequent in this report.

Q. What is the next item?

A. The next item is "General Transportation Equipment" on which I have shown in line 2 a deduction of \$21,702.18 and a resultant present value of \$88,269.72. In connection with this item detail will be found as to individual units on pages 47 to 49, inclusive.

Q. Tell us how you arrived at these figures.

A. As to automobiles and trucks, I have estimated that automobiles would have an ultimate life of 100,000 miles.

Q. Is that based on your experience and the experience of this company?

A. It is. This does not mean that Panhandle Eastern Pipe Line Company proposes to drive automobiles 100,000 miles before disposing of them. It means, in fact, that they will drive these cars about 50,000 miles each and dispose of them at 50 percent of their cost, so the assumption [fol. 1211] of 100,000 miles total life is in line with the Panhandle Eastern Pipe Line Company's policy as to trading in of cars and as to their experience as to their life.

Q. They have had that experience, have they?

A. Yes, sir, and it is an experience which I have encountered in my analysis of other situations.

As to trucks I have used the figure of 75,000 miles and I have depreciated automobiles and trucks on the basis of these ultimate lives in proportion to the mileage which they have traveled as of the close of June 1941.

Q. Well, let's take as an example the Ford, Tudor sedan, I suppose it is, listed on line 2, page 47 of Exhibit 62, car No. 653.

A. The mileage recorded on that car was 34,797 miles, which is 34.8 percent in round numbers of 100,000 miles and its reproduction cost new was \$826.91 and 34.8 percent of that is \$287.76 and that is the amount of the deduction for that car to obtain its present value of \$539.15.

Q. How did you get the reproduction cost new item of \$826.91 that you list here on page 47?

A. That is the amount of money that Panhandle Eastern paid for the car when new.

Q. That is not an attempt to find out how you could build that car new today, is it?

A. No, that is just the price of it, that is all.

[fol. 1212] That method was used as to automobiles and trucks. The amount of depreciation set up against trailers and winches is my judgment of the amount by which those items have been depreciated after having seen a considerable amount but not all of that equipment.

Q. Well now let's take trailers, line 23, page 49, where you show \$2,463.40 as deductible for depreciation and where you show present value \$7,390.18. That is the item you have just referred to as trailers, is it? A. Yes, sir.

Q. And that is a judgment figure? A. That is correct.

Q. Now take winches, line 24, page 49, where you show to deduct for depreciation \$1,187.37 and where you show present value \$3,562.11, there, again, you have used a judgment figure as so stated, have you?

A. That is correct and the deduction is 25 percent of their cost.

Q. All right, now will you state the totals with respect to general transportation equipment?

A. The total deduction shown on line 25, page 49, is [fol. 1213] \$21,702.18 with a resultant present value of \$88,269.72.

Q. As carried forward to line 2, page 46. Is that correct? A. That is correct.

Q. Will you turn now to the subject of general laboratory equipment as shown on page 46, line 3, and state what your results were and how you arrived at them?

A. As a matter of judgment, having seen some of this equipment I made a deduction of 20 percent of its reproduction cost for depreciation thereon in the amount of \$1,310.14 with a resultant present value of \$5,240.77 as shown at line 3 on page 46.

Q. Do you believe that to be a reasonable amount for that deduction? A. I do.

Q. Now, will you turn to the subject of general communication equipment and state what the figures are, where they are shown and what your methods were?

A. This general communications equipment consists of a telephone line and its necessary appurtenances, the line running from Kansas City to the Hugoton field and into the [fol. 1214] Panhandle field.

I made observations on this telephone line at various points during the course of my inspection. As a result of those observations from the main line in Texas I deduct 10 percent for depreciation, for the tools in Texas I deduct 25 percent, for the main line in Oklahoma I deduct 10 percent, for the main line in Kansas I deduct 10 percent and for the tools in Kansas I deduct 25 percent.

Q. Based on your experience and your observation of this particular equipment you believe that to be a reasonable deduction? A. I do.

Q. What are the figures you found?

A. I find for general communication equipment a total deduction of \$49,690.12 with a resultant present value of \$443,048.17.

Q. As carried forward to line 4, page 46?

A. As shown on that line of that page.

Q. Yes. And this is a figure which has been based upon your experience and your inspection of this property, is it? A. That is correct.

Q. All right, now for the last item under "General System Property" appears to be general tools and implements as shown on line 5, page 46. Please explain that item.

[fol. 1215] A. For this equipment I have made a deduction of 25 per cent of its value.

Q. What is that?

A. This consists of tools, tractors, excavating machinery and, in general, the tools and equipment used in the maintenance and operation of the pipe line system.

Q. Why did you arrive at 25 percent for a deduction?

A. Well, I have seen a great deal of this equipment on this system and I am familiar with the condition in which tools for such operating organizations are usually found to be.

Q. Well, are these found to be in that condition?

A. That is my estimate of the condition that they are in.

Q. All right, what are the figures?

A. The amount which I have found to be deductible is \$10,062.97 with a resultant present value of \$30,188.89.

Q. Now, Mr. Biddison, will you state what your conclusions are with respect to total general system property as shown on line 6, page 46?

A. That there should be deducted from reproduction cost new \$94,477.76 which produces a present value of \$633,087.36.

Q. As carried forward to line 27, page 2?

A. That is correct.

[fol. 1216] Q. Now, will you state, Mr. Biddison, what the deduction for depreciation is that you have found on total direct construction cost?

A. The sum of all of the deductions for depreciation which I have determined and generally explained is, as shown, on line 28 for direct construction cost.

Q. (Page 2?)

A. Page 2, \$3,695,761.90 resulting in a present value for the direct construction costs of \$62,633,741.69.

Q. Mr. Biddison, you did not deduct anything on the item of intangible fixed capital, did you?

A. I did not, nor on the item of construction work in progress nor on working capital nor on the value of gas purchase contracts nor on the cost of business development. I did, however, make a deduction for depreciation upon undistributed construction expenditures shown on line 31 on page 2 of this exhibit.

Q. In what amount?

A. In the amount of \$425,987.90, with a resultant present value of that item of \$7,221,909.68.

Q. How did you arrive at that deduction?

A. That deduction bears the same relation to the reproduction cost of that item as does the total deduction bear to the total of direct construction cost.

[fol. 1217] Q. In other words, you used a similar proportion, did you? A. Yes, sir.

Q. And why?

A. Because as items lost value I think the undistributed general costs incurred on them lost value correspondingly and to the same degree.

Q. Well, having made that deduction, what is your figure with respect to the deduction for depreciation for

2

the total plant property and business of Panhandle Eastern Pipe Line Company?

A. \$4,121,749.89 as shown on line 37, Column C.

Q. And from what figure do you deduct that amount in order to arrive at your statement of present value?

A. From a reproduction cost new, as shown in Column B of \$83,833,448.54.

Q. Which is the figure shown, is it, in Exhibit 39 as amended by Exhibit 39-A? A. That is correct.

Q. And what is your final figure at which you arrived in Exhibit 62?

A. \$79,711,698.74 as shown in Column D, line 37, page 2 and as mentioned in the letter of transmittal upon page 1.

[fol. 1218] Q. Have you also developed a book containing numerous photographs of the actual inspections which you made during this study?

A. I have and it is available. I have been carrying it back and forth here. I just got tired carrying it and didn't bring it today.

Trial Examiner: Exhibit 62, which is, shall we say, supplemental to proposed Exhibit 39, is now offered in evidence, and the ruling on its admission will be deferred until after cross-examination.

Mr. Littman: Mr. Biddison, do I understand that this Exhibit No. 62 contains in Column B your estimate of the [fol. 1219] reproduction cost new of the plant property and business of Panhandle Eastern Pipe Line Company and Illinois Natural Gas Company as of June 30, 1941?

The Witness: Yes, those figures being obtained either directly from Exhibit 39 or 39-A or from the working papers from which they were compiled. The arrangement of the items in Column B of Exhibit 62 is not in all cases identical with the arrangement in Exhibit No. 39 or 39-A.

Mr. Littman: Do I also correctly understand that your Column C contains throughout this exhibit your estimate of observed [to] depreciation?



The Witness: It does.

Mr. Littman: Am I also correct in understanding that figures in this exhibit shown in Column D show your estimate of reproduction costs new less your observed depreciation?

The Witness: That is correct, and that is obtained by deducting Column C from Column B.

Mr. Littman: In other words, it is reproduction cost new less depreciation that you mean by the term "present value," is it not?

The Witness: Well, no, it isn't.

Mr. Littman: What is it?

The Witness: What I mean by the term "present value" is present value. Now, I have arrived at present value by exactly the process which you mentioned, by [fol. 1220] deducting from reproduction cost new the observed depreciation, and I have labeled the answer "present value." It is, also, in this case, reproduction cost new less the observed depreciation.

Mr. Littman: In other words, the one is synonymous with the other?

The Witness: In this case it is.

Mr. Littman: That is, in your opinion?

The Witness: In my opinion, of course, yes, sir.

Mr. Littman: Thank you.

Mr. Wheat: May I ask this question? Mr. Biddison, when you use the term "observed depreciation" you include all of the types of depreciation whether calculated or actually observed or otherwise arrived at by processes of judgment which you have discussed in your direct testimony in respect to Exhibit 62?

Mr. Littman: Just a minute, I object to Mr. Wheat testifying here for this witness. I believe the witness has already explained what he meant by what he included in Column C. I object to this question, if Your honor please.

Mr. Littman: Certainly it is leading if nothing else. [fol. 1221]. Mr. Wheat: That is correct. It is objectionable from that ground.

Mr. Biddison, when you, in response to a question by counsel for the Commission, stated that Column C contained figures which are observed depreciation, did you refer to figures arrived at in all the methods which you have explained in your direct testimony in connection with Exhibit 62?

The Witness: Certainly, because I have included all those methods in that column as I have just been explaining here this afternoon. I might better have used the word "determined depreciation" rather than "observed" but I have not restricted myself as to the word "observed" to only that which I saw in compiling Column C and I have so testified otherwise this afternoon.

[fol. 1222] Mr. Gorman: If the Examiner please, Commission's counsel would like at this time to state our [fol. 1223] objection to the receipt in evidence of the exhibits in this proceeding which have heretofore been offered by the Respondent, Panhandle Eastern Pipe Line Company, concerning the reproduction cost less depreciation of the property of this Respondent.

We object specifically to Exhibit No. 37, both parts 1 and 2, entitled "Panhandle Eastern Pipe Line Company, Market Value of Leases"; Exhibit No. 38, entitled "Basic Statistics Used in Calculating Interest, Ad Valorem Taxes and Operating Expense [Attributable] to Unused Capacity" and also "Five Different Methods of Calculating Interest, Ad Valorem Taxes and Operating Expense Attributable to Unused Capacity"; Exhibit No. 39 entitled "Panhandle Eastern Pipe Line Company and Subsidiary Companies, Reproduction Cost New of Plant Property and Business as of June 30, 1941, P. McDonald Biddison, Consulting Engineer Dallas, Texas;" and the modification of that exhibit designated as Exhibit No. 39-A; and Exhibit 62 entitled "Panhandle Eastern Pipe Line Company and Subsidiary Companies, Deduction from Cost of Reproduction New for Depreciation and Present Value of Plant, Property and Business as of June 30, 1941."

We also move to strike all testimony concerning reproduction cost given in connection with these exhibits, on the ground that all of such evidence is incompetent, irrelevant, and immaterial in this proceeding in that such evidence [fol. 1224] of reproduction cost has no bearing on and is unnecessary to the determination of the proper base for rate-making purposes in this case.

I should like to say at this point, while we object to Exhibit No. 62 our objection goes to the basis that this exhibit is set up on values, on amounts of reproduction cost new and what was purported to be an estimated depreciation of the property as of June 30, 1941, which was also set up on a dollar value. In making objection to this exhibit we want it to be understood that we do not object to any attempt, a proper attempt at least, of this Respondent, to show what is estimated to be the accrued depreciation in Respondent's property as of any particular given date.

This proceeding, as we all know, was instituted pursuant to the provisions of the Natural Gas Act, and when I say "this proceeding" I include, of course, the matter at Docket No. G-200 as well as the matter at Docket No. 207. Since this is true, your special attention is invited to Section 6(a) of the Natural Gas Act, which reads as follows:

"The Commission may investigate and ascertain the actual legitimate cost of the property of every natural-gas company, the depreciation therein, and, when found necessary for rate-making purposes, other facts which bear on the determination of such cost or depreciation and the fair value of such property."

[fol. 1225] Now, as the Examiner and the parties to this proceeding have doubtless observed, this language is identical with the language contained in Section 208(a) of the Federal Power Act, excepting, of course, that the words "natural-gas company" have been substituted for the words "public utility" as contained in the Power Act.

Since this is true, any construction of Section 208(a) of the Federal Power Act would be equally applicable

and of as great weight when applied to Section 6(a) of the Natural Gas Act, and contrariwise.

The Commission has not, as yet, been confronted with a case involving or requiring a ruling as to the effect and intent of Section 6(a) of the Gas Act. It has, however, placed its interpretation of the import of Section 208(a) of the Power Act, as evidenced by its Opinion No. 63, at Docket No. IT-5500, in the matter of Chicago District Electric Generating Corporation, which was issued as of July 16, 1941.

The Examiner is, of course, familiar with that decision, and I am sure counsel for all parties to this proceeding are likewise acquainted with it. However, I should like to point out certain salient features of that case and the statements of the Commission concerning them, because of the close analogy between the facts related to the Chicago District case and the facts of the proceeding in which we are here engaged.

[fol. 1226] At the outset of its opinion, the Commission undertook to point out that the cost records of the Chicago District Corporation "are complete and well maintained." That there was "no difficulty whatever in ascertaining promptly and accurately from the books of the Respondent the cost of, or the prudent investment in its property." That is cited from page 7 of the opinion.

The Commission then, upon consideration of Section 208(a) of the Power Act, found that Congress thereby "clearly evinced a definite departure from the fair value doctrine of *Smyth vs. Ames*" (169 U. S. 488-1898; (page 8). That "Congress recognized the fair value doctrine as an impediment to rate making. It saw plainly the lack of practical workability in the requirement that we," that is the Commission, "be compelled in all rate cases to enter into the elaborate investigations and determinations implicit in any reproduction cost finding when, in most cases, there would be no necessity for any such determination."

The Commission then went on to say "we were directed to determine facts other than actual legitimate cost bearing on the fair value of a utility company's property in those situations when we found it necessary in order to do justice in the rate-making process. It was recognized

that there might still be some instances of companies subject to our jurisdiction whose historical records were not [fol. 1227] in such shape that the prudent investment in the property might be accurately determined."

The Commission reached the climax in this phase of its opinion when it said: "It would appear, therefore, that this section (and here, again, we would like to emphasize the identity between Section 208(a) of the Power Act and, Section 6(a) of the Gas Act) contemplates the ascertainment of facts other than the actual legitimate cost which bear upon the fair value of the company's property in rate-making procedures when the exigencies of the particular situation require such a determination. In the normal case we were, directed, however, only to determine the actual legitimate cost and the depreciation (that is, the prudent investment) of the utility's property."

The position taken by the Commission in the Chicago District case may well be summarized in the following sentence taken from its opinion:

"Reproduction cost evidence is inherently fallacious and should be confined to those rare cases where evidence of original cost or prudent investment cannot reasonably be assembled."

Therefore, from a reading of this decision of the Commission, with particular reference to those passages which we have quoted, it appears clear and certain that the Commission does not propose to entertain any consideration of [fol. 1228] evidence of reproduction cost in those "normal" cases where the company's "cost records are complete and well maintained" and where there "is no difficulty in ascertaining promptly and accurately from the books of the Respondent the cost of, or the prudent investment in its property," but to the contrary has clearly manifested an intention to consider reproduction cost evidence only in "those rare cases where evidence of original cost or prudent investment cannot reasonably be assembled."

We submit to the Examiner that this instant proceeding falls within the Commission's classification of a "normal" case where reproduction cost is not pertinent. Here the cost records are "complete" and the cost of Respondent's

property can be "promptly and accurately" ascertained from the books of Respondent.

The truth of this statement is evidenced by the fact that the Panhandle Eastern Pipe Line Company was obviously in a position to ascertain from its books and records not only the amount invested in its property, but to set forth in itemized detail the actual growth of this investment as shown on Exhibit 52 which has been offered by this Respondent.

It is probably true that this Exhibit 52 reflects the "book cost" and does not necessarily purport to be the "actual legitimate cost." This distinction, however, can be of little service to the Respondent in this proceeding because [fol. 1229] the "book cost" and the "actual legitimate cost" are said to be practically one and the same as witness the statement of Mr. Watkins, secretary and controller and chief accounting officer of the Panhandle Eastern Company, who said at page 926 of the transcript as follows:

"It is my opinion, based upon my experience with this company, and also my knowledge of the way in which its books have been developed, that when it becomes possible to make the filing required by the Commission, order No. 73"—and he was referring to the statement of original cost—"there will be very little, if any, difference between the investment of the company in properties as shown by its books, prior to the adoption of the Commission's Uniform System of Accounts, and the amounts to be reported as original cost."

While we feel bound to construe Section 6(a) of the Natural Gas Act precisely as the Commission has construed the language of Section 208(a) of the Federal Power Act, and while we feel that the Trial Examiner is also bound by such construction, we should like to point out here that this construction is not necessarily original with the Commission, itself.

At the annual meeting of the American Bar Association held on September 9-10, 1940, the "Report of the Special Committee to Report on Recent Development In the Field of Public Utility Valuation and Accounting" speaking



[fol. 1230] with reference to these sections of the Power Act and the Gas Act, which we have been discussing, said at page 14 of such report:

"It will be noted that the primary duty of the Commission (speaking of the Power Commission) under these two provisions is to ascertain the cost of the property and the depreciation therein and that 'other facts which bear on the determination of such cost or depreciation, and the fair value of such property' are to be determined only 'when found necessary for rate making purposes.' There is here the possible inference that the Congress, when it drafted this provision, was hopeful that the courts would decide that nothing other than the 'actual legitimate cost' of the property would be 'found necessary for rate making purposes.' However, that may be, it is patent that an accounting or cost rate base was dominant in the Congressional mind; and that these very recent statutes in that respect are the very antithesis of some of the older state statutes which prescribe the reproduction cost new less depreciation formula."

As further proof of our contention that reproduction cost is not necessary to a determination of the proper base for rate making purposes in this proceeding, we desire to invite the Examiner's attention to other facts which are cognate to this question, but are distinguished from the reasons stated by the Commission in its opinion [fol. 1231] as to why a consideration of reproduction cost is unnecessary in the "normal" case.

In the McCardle case, that is, McCardle vs. Indianapolis Water Company (1926), cited at 272 U. S. 400, 411, the United States Supreme Court said:

"Undoubtedly, the reasonable cost of a system of waterworks, well planned and efficient for the public service, is good evidence of its value at the time of construction. And such actual cost will continue fairly well to measure the amount to be attributed to the physical elements of the property so long as there is no change in the level of applicable prices."

This statement was cited again in the case of Los Angeles Gas & Electric Corporation versus the Railroad

Commission of California, 289 U. S. 287 (1933) and the same theory was there upheld by the Court.

In the case here before the Examiner, the Respondent has not been heard to contend that there has been a "change in the level of applicable prices" to the extent that the "actual cost" does not "continue fairly well to measure the amount to be attributed to the physical elements of property." On the contrary, the evidence offered in this proceeding by the Panhandle Eastern Pipe Line Company would refute any such contention if it were so advanced:

Exhibit 52 shows that the "Total Gas Plant Classified" as of June 30, 1941, is shown on the books as being \$64, [fol. 1232] 622,148.66. Of this amount, plant property requiring an investment of \$7,571,851 was in place on December 31, 1930. This is equivalent to 11.7 percent of the total investment. In addition, at the end of the year 1930, the work in progress represented a required investment of \$23,462,004, which is equivalent to 36.3 percent of the total investment. Since this work representing a total of 48 percent of the total investment of Panhandle Eastern Pipe Line Company was actually in progress during the year 1930, it was unquestionably contracted for at 1930 or higher price levels.

Exhibit 52 shows that during the year 1931 further additions to the system property were made which are said to have a book value of \$10,781,926. This is equivalent to 16.7 percent of the stated book value of all property at June 30, 1941.

Additional construction of a stated book value of \$3, 945,873 was completed in 1936, which was 6.2 percent of the whole. At the end of this year there was work in progress entailing an investment of \$503,061, or 0.8 percent of the whole, which was contracted for at 1936, or higher price levels.

In 1937 property having a book value of \$11,684,833 was added to the system. This investment was 18.1 percent of the entire stated book value.

Finally in 1940 property having a stated book value of [fol. 1233] \$5,154,363 was added, which is equal to 7.97

percent of the whole. Also there ~~was under~~ construction at the end 1940 work, contracted for at 1940 or higher price levels, entailing an investment of \$688,812 or 1.7 percent of the whole investment.

Having thus considered to some extent the growth of the property and the years when the greatest amounts of money are shown by Respondent's records and the testimony of its witnesses to have been invested, let us now consider the question of whether there has been any material changes in the price levels.

For this purpose, and for this purpose only, we will adopt the United States Department of Labor—Bureau of Labor Statistics—Index Numbers of Wholesale Prices of All Commodities—as shown on Exhibit A to Exhibit 61 for identification which has been offered in this proceeding by Dr. Friday. In considering the yearly comparisons which we here offer, we ask the Examiner to keep in mind that the percentages of dollar investment, to which we refer, are, in fact, the percentages of the total investment in plant property, which are shown on Exhibit 52 to have a grand total of \$64,622,149 as of June 30, 1941.

In 1930, as we previously stated, there was contracted for property having a total value on the books of \$31,033,855 which represented 48 percent of the total value [fol. 1234] of the property used and useful according to Exhibit No. 52 on June 30, 1941. The average price index for the year 1930, when 48 percent of this property was installed, was 86.4 percent, whereas the average price index for the first six months of 1941 was 83.0 percent.

In 1931, a \$10,781,926 investment was made which is 16.7 percent of the total. The average price index for this year was 73.0, the average price index as stated for the first six months of 1940 was 83.0.

In 1936 an investment was made of \$4,448,934 or 7 percent at an average yearly index figure of 80.8.

In 1937, \$11,684,833 was invested which was 18.1 percent of the whole and the average price index for that year was 86.3.

In 1940, \$5,843,175 was invested which was 9.7 percent of the whole and the average price index for that year was 78.6.

From these comparisons, or this tabulation, it will readily be seen that approximately 66.1 percent was constructed in 1930 and 1937, that is, 66.1 percent of the total investment of Panhandle Eastern, as shown on its books, was made during years when the yearly index was at least 3.3 above the average of 83.0 for the first six months of 1941.

Approximately 7.0 percent of the total was invested during a year when the index was 2.2 below the 1941 figure [fol. 1235] of 83.0. Approximately 9.7 percent of the total was invested during a year when the index was only 4.4 below the 1941 figure of 83.0 and finally only 16.7 percent was invested in a year when the index was 10.0 below the 1941 index figure of 83.0. The aggregate investments made in the years referred to represent about 99.5 percent of the total; the remaining  $\frac{1}{2}$  of 1 percent having been made during the other six years of Respondent's corporate history.

The weighted average of these figures and the yearly indexes which I have mentioned shows that 99.5 percent of the total invested property, as of June 30, 1941, of this Respondent, was made at a weighted index average for these years of 82.96 which is precisely four-hundredths of 1 point below the average index for the first six months of 1941.

Yet, despite the fact that when considered as a whole, the foregoing comparisons of yearly index numbers of commodity prices, upon which Respondent relies, conclusively show that there has been no material change in price levels over the indices for the years when the property was constructed, the Panhandle Eastern Pipe Line Company is here contending that the reproduction cost, new of its property would entail an investment of more than 17 million dollars over and above the actual stated book cost value.

We wish to again emphasize that by the use of the index submitted by Dr. Friday we do not here concede that we

[fol. 1236] consider such indices to be useful for any proper purpose in this proceeding. Concerning the use of indices and trends in utility valuation proceedings, it has been said by an eminent authority on this subject, namely, Mr. Wheat, counsel for Panhandle Eastern, referring to the Harvard Law Review, Volume 51, at page 856, that

"If variations between the original cost of utility property, that is, an amount approximating so-called 'prudent investment' and 'the present cost of construction' (mentioned in *Smyth vs. Ames*, 169 U. S. 466—1898) are to be considered in rate base development, the sensible use of pertinent price and cost indices and trends seems indicated. Such action is believed wholly consistent with the remarks of the United States Supreme Court in *West vs. Chesapeake and P. Tel. Co.*, 295 U. S. 662 (1935), if the trends are carefully selected and bear directly upon the specific type of property under consideration."

Obviously price and cost indices and trends presented in Exhibit 61 by Dr. Friday have not been "carefully selected and do not bear directly upon the specific types of property under consideration", but, if Mr. Wheat deems them to be proper for his purpose in this case, they are certainly entirely proper for our purpose.

We conclude, therefore, in view of the foregoing facts, with the following statements taken from the opinion of [fol. 1237] the Commission in the Chicago District case, and while it is a quotation we adopt it as our position in this case.

"We (and when I here say 'we' I mean the Commission) have been authorized by Congress to determine the actual legitimate cost of utility properties and the depreciation therein, that is, the prudent investment. We have been directed to determine other facts bearing on the fair value of such property, such as reproduction cost, when found necessary for rate-making purposes. There is nothing which makes a determination of reproduction cost necessary for rate making purposes in this proceeding. On the contrary, such a determination would be not only valueless but, in fact, obstructive of the orderly regulatory process. We conclude, therefore, that the rate base in



this case is the actual legitimate cost of the property used and useful in furnishing the service subject to our jurisdiction, less the existing depreciation in such property, plus the working capital necessary to render such service."

[fol. 1238] Mr. Littman: I believe the reasons already stated by Mr. Gorman are sufficient to warrant the exclusion of the evidence offered in this proceeding of reproduction costs new less depreciation of the consolidated plant, property and business of Panhandle Eastern Pipe Line Company and that of its wholly owned subsidiary, Illinois Natural Gas Company.

There is, however, another further cogent and, I believe, compelling reason why this evidence must be excluded, and that is because this evidence is wholly without any probative weight for rate making purposes and is wholly unreliable for rate making purposes.

As Mr. Gorman has pointed out—and I would like to summarize one portion of his argument, if I may—the reproduction cost estimate, which company witness Biddison presented, amounts to \$83,833,448 new and \$79,711,698 depreciated. This claimed value new is \$17,143,799 in excess of the book cost of the gas plant. Company witness Watkins, the controller of Panhandle Eastern Pipe Line Company, testified that book cost in this case would very closely approximate original cost, and so it may, therefore, be concluded from the company's own testimony that the reproduction cost new estimate, submitted here by Mr. Biddison, exceeds original cost by at least \$17,143,000.

[fol. 1239] Now this wide disparity between the value claimed by the company through Mr. Biddison's theoretical and hypothetical estimate and the value or costs appearing on the company's own books and claimed by them as their actual cost is particularly shocking when viewed in the light of the fact that this property was for the most part constructed during an era of high price levels.

The company's estimate, we submit, proves too much and we submit it is distinctly at war with realities.



This so-called reproduction estimate upon closer examination includes the enormous sum of \$8,695,524 for so-called market value of gas leaseholds. This estimate is contained in Exhibit 37, Parts I and II, which was presented by company witness Wallace. This estimate of so-called market value of leaseholds of \$8,695,000-odd exceeds the claimed book cost of leaseholds, exceeds, if you please, the cost as recorded on the books of this company by the amazing and astounding amount of \$7,000,000. In short, the company is here claiming, by its theoretical estimate, approximately five times more for these leases than it actually paid for them.

Now, Mr. Wallace's conclusions are based upon what he pleases to call his judgment. His method, as disclosed by his testimony, we submit, is subject to all the infirmities and vices of the methods employed by the witnesses who [fol. 1240] testified on market value of leaseholds in Dayton Power & Light Company case, which is reported at 292 U. S. 290.

Justice Cardozo in that case condemned in no uncertain terms this character of evidence of market value. He said that such "evidence is lacking in that high coercive power", "is lacking in that high coercive power", and that Court and Commission are "free in their discretion to reject as unsatisfactory the conflicting opinions of a group of friendly experts."

While it is true in this case we have one friendly expert, we submit that the evidence that he submitted is so similar to that submitted by the witnesses in the Dayton case that it, too, must be excluded. Similar evidence was rejected by the United States Supreme Court in United Fuel Gas Company versus West Virginia Public Service Commission, reported at 278 U. S. page 322, the decision in that case being written by Justice Stone.

If I may, for a moment, refer to the exhibit, itself, I would like to read, Your Honor, a bit of the testimony, some of the reasons why Mr. Wallace found a value \$7,000,000 in excess of book cost; this is typical. I quote from page 8 of Exhibit 37, Part I:

"From the beginning of active development of the oil pools in the Texas Panhandle field in the year 1926 there

was an excessive waste of gas. In the early years, of [fol. 1241] course, there was not an appreciable market for gas for light and fuel, consequently, the gas at that time was of little or no value. Likewise, the market value of leases was very low. It was what was termed a 'wildcat area' and the producing extent, or boundaries of the field had not been determined."

In other words, it is clear that what Mr. Wallace has done here is to reflect in his market value something that the consumer, himself, has created. He also says at page 8: "Beginning about 1927 when some of the major gas transmission lines were being planned, the market value of leases in the gas area increased very rapidly."

In other words, what Mr. Wallace has included in his valuation is an increment, a so-called value, brought about by the very presence or existence of this company's main transmission line running into that field, something which the gas consumer, himself, created.

On page 10 he said, "Legislative and Railroad Commission policy has undoubtedly resulted in the creation of higher values for the reason that a purchaser will now feel more confident of recovering a greater proportion of the gas underlying the land than would have been possible under former conditions."

In other words, Mr. Wallace would ask the rate payer to pay a return upon a value which he claims was brought about by reason of conservation measures taken by the [fol. 1242] Legislative and Railroad Commissions of Texas and other states.

Now the reproduction estimate here submitted also includes the huge sum of \$6,053,992 for so-called "cost of business development." At least five and a half million dollars of this amount represents past operating expenses, past taxes, and past interest for which the commission has been reimbursed long since through past rates paid by the consumers. This is simply an undisguised attempt, we submit, to capitalize operating expenses and bond interest.

Now, the United States Supreme Court has again and again rejected similar attempts to compel the rate payers to pay a return on operating expenses long since paid for

through the medium of past rates. As Justice Cardozo pointed out in the Columbus case, 292 U. S. 398, "So far as such expenses had been actually incurred by any affiliated company, they had already been concluded as part of the cost of operations," and that "We cannot find that the Commission and Court went beyond the bounds of legitimate discretion in putting aside these estimates as too uncertain to be followed."

The company's estimate, also, includes the further sum of \$1,585,914 for so-called "Value of Gas Purchase Contracts." Now, I submit that this is a monstrous claim. The company here alleges that it has certain advantageous gas purchase contracts under which it buys gas at about [fol. 1243] three and a half cents per m. c. f. It contends that simply because the present market value of that gas which, of course, the consumer, himself, has created, a market which the consumer, himself, I submit has created is four and one-half cents, that he is entitled to capitalize the purported enhancement of value on that account.

Isn't the rate payer entitled to the savings in operating expenses? Can we imagine this company offering to reduce its rates and its rate base if those contracts obligated it to pay more than the going field price of gas purchased?

Indeed not! In those circumstances, of course, the company would contend that the contract price furnishes the correct measure of its cost. Surely the rate-paying public is not to be penalized by the fact that the company has advantageous gas purchase contracts.

Moreover, the fallacy of the contention is apparent because it is the regulated price to the consumer which determines the field price of the gas purchased, and those rates, themselves, are here the subject of inquiry by this Commission.

The market value of gas in the field will in the ultimate be determined by rates fixed by regulatory bodies, including the Federal Power Commission.

If the company's contention in this regard were allowed we would find ourselves in a vicious circle. Moreover, it [fol. 1244] should be remembered that the customer, himself, has created the very market upon which the company

relies as the basis of market value of gas. Indeed, Mr. Biddison, himself, described his estimate of value of gas purchase contracts as "present value of future profits."

This reproduction estimate also includes the amount of almost one-half a million dollars for so-called "Intangible Fixed Capital." This amount covers the alleged cost, as estimated by Mr. Biddison of "Preliminary and Organization Expense." It was computed by Mr. Biddison by applying .75 percent to his total direct construction costs.

Now, it is significant to note that Panhandle Eastern Pipe Line Company claims to have actually expended, according to its own books, \$179,320 as compared with Mr. Biddison's estimate of almost a half million dollars on account of intangible plant.

[fol. 1245] Mr. Lattman: My argument goes to the weight to the extent that I am endeavoring to show that this evidence is entitled to no weight; that it is wholly incompetent and wholly without any probative weight.

Witness the fact, if Your Honor please, that Mr. Biddison's so-called estimate of a half million dollars for intangible plant is almost three times the claimed actual cost of organizing this company. His claim in this regard appears even more ludicrous when it is considered that Mr. Biddison's estimate of the cost of organizing this company became a different amount after he corrected [fol. 1246] for his error of one and a half million dollars in the estimate of the value of the physical plant.

By using a percentage to the various estimates of physical plant before and after his correction of his million and a half dollar error he secured a lower amount or different amount as a cost of organizing the company.

In other words, the higher Mr. Biddison's estimate of the cost of pipe, then the higher was his estimate for the cost of organizing the company. Certainly such evidence is entitled to no credence or belief.

The items which I have mentioned, and I shall not go into all of them, of course, more than account for the disparity between the company's claimed book cost and

their claimed reproduction cost, but to all this is added the inherent infirmities and vagaries of Mr. Biddison's estimate of reproducing other features of the plant.

Mr. Biddison based his costs, for example, upon prices as of June 30, 1941 which we all know is a most abnormal and unprecedented period. The record shows that it would be impossible to obtain the required quantity of pipe on this date due to the unprecedented war requirements and priorities. But that didn't disturb Mr. Biddison one bit. He assumed that it would all be bought at the top price, notwithstanding the fact that the evidence in this case conclusively shows that the company hasn't [fol. 1247] been able to buy enough pipe to extend their lines for a short distance up in Michigan,—purely a hypothetical estimate based upon anything but the facts,—nor does Mr. Biddison for a moment hesitate to suggest by his estimate that the consumer should pay a return on an alleged increment created by this Nation's defense efforts,—a claimed enhancement of value which the company has neither created nor earned.

It is respectfully submitted under the decisions cited to Your Honor by Mr. Gorman and myself, and under the evidence of the record in this case, that these exhibits should be excluded from the evidence and that all testimony given in connection with reproduction cost new less depreciation should be excluded and we respectfully and earnestly urge the exclusion of such evidence, if Your Honor please.

[fol. 1250]

Proceedings.

Trial Examiner: The hearing will be in order.

Upon receipt of the report of yesterday's proceedings which the Trial Examiner carefully reviewed, the session for today seems to be quite appropriate in order to further discuss this objection. I think, in fact, it is very fortunate that the objections were raised at this early stage in the proceedings in order that if any saving of time results, we will be able to plan accordingly.

With respect to the objection stated last evening by counsel for the Commission, we have, of course, the recent

statement of the Commission, itself, in its opinion in the Chicago District Electric Generating proceeding, to the effect that in a so-called "normal" case, as distinguished from what might be called a rare, or unusual case, reproduction cost estimates are neither relevant, material, nor of any probative value.

As the Trial Examiner understands the objection of Commission's counsel, it is in substance this:

That the instant proceeding by reason of the very close parallelism of the facts in this case to those which existed in the Chicago District Electric Generating proceeding fits closely into the category described by the Commission as a "normal" case, and consequently that in this proceeding, reproduction cost evidence is irrelevant, immaterial, of no probative value, and therefore should be excluded in its [Vol. 1251] entirety.

That is a correct statement, is it not, Mr. Gorman?

Mr. Gorman: Yes, it is, Mr. Examiner.

Trial Examiner: The Trial Examiner desires to state that he has the very definite impression at this point that there is a close parallel between at least the major aspects of this proceeding and the major aspects of the Chicago District Electric Generating matter.

Consequently, at this moment, the Trial Examiner feels inclined to go along with Commission's counsel in putting this instant proceeding in the category of the so-called "normal" proceeding.

The Trial Examiner does not readily find, from an examination of the evidence, without specific reference to the details, that counsel for the company has come forward with any facts indicating the necessity for a consideration of reproduction cost evidence in this proceeding.

In view of this, I would be pleased, at this point, to hear a statement from company counsel, as to the reasons why they believe that this proceeding necessitates the reception of reproduction cost evidence.

In other words, to obtain a statement in the record as to what peculiar facts are present in this matter which



would take it out of the category of what the Commission in the Chicago case and its opinion, described as a "normal" proceeding.

[fol. 1259] Mr. Littman: Am I correct in stating that this so-called "cost of business development" which figure was derived by Mr. Biddison from Mr. Morton's Exhibit 38, isn't that item a part and parcel of Mr. Biddison's claimed reproduction cost new less depreciation?

Mr. Wheat: Yes, it is.

Mr. Littman: All right.

[fol. 1277] Mr. Littman: If Your Honor please, I waited patiently throughout the reading by Mr. Wheat of his prepared argument, and nowhere did I hear him answer [fol. 1278] the inquiry propounded of him by Your Honor; namely, is this, or is this not a "normal rate proceeding" such as the proceeding which was before the Commission in the Chicago District Electric Generating case? If this is a normal proceeding, then, of course, if we are to follow the precedent established by this Commission in the Chicago District Electric Generating case, no testimony with respect to reproduction cost new less depreciation is admissible.

If counsel for Panhandle Eastern Pipe Line Company will come forward here and show us that this is not a normal case upon this record, and that it is one of those rate cases referred to by the Commission in the Chicago District Electric Generating case, then, of course, it will be up to Your Honor to consider whether or not evidence of this nature is admissible.

But I think it is highly significant that counsel for the Company has utterly failed to advance one argument thus far along the lines suggested by your Honor in connection with whether or not this is a "normal rate proceeding."

Now, the Commission has fully considered, and said in its opinion in the Chicago District Electric Generating

case, it had fully considered all of the general arguments advanced by counsel for the Company in connection with Smyth versus Ames, and in connection with the legislative history of the section of the Natural Gas Act upon which the Commission relied. All of that is, so far as this Commission is concerned, water over the dam.

The question, of course, will ultimately have to be decided [fol. 1279], by the Courts, but I don't believe that it is necessary at this time, inasmuch as the Commission has already fully discussed these legal propositions in its decision in the Chicago District Electric Generating case, to go into them any further here.

I would like to call your Honor's attention, your careful attention, to the wording of our objection. Commission's counsel's objection is, of course, first, to the five-named exhibits; namely, Exhibits Nos. 37, 38, 39, 39-A, and 62, and also Commission's counsel moved "to strike all the testimony concerning reproduction cost given in connection with these exhibits."

Now, careful consideration of the language in that objection would not exclude from the testimony in this case any testimony that might bear upon depreciation—accrued depreciation, which might be applicable to book costs, or to original costs.

It goes to the depreciation which has here been applied to the reproduction cost new.

Now, Exhibit No. 62, set forth three columns in dollars, not in percentages, giving us the reproduction cost new, giving up the accrued depreciation in dollars, and the reproduction cost new less depreciation, referred to by Mr. Biddison as present value, also in dollars.

Of course, we don't know whether Mr. Biddison, nor has he stated on this record, would apply his rates, or percentage of accrued depreciation to original cost or book [fol. 1280] cost, and so our objection, if your Honor please, goes to his resulted dollars, and certainly if Mr. Biddison wishes to come forward in the hearings which will ensue in this case, and testify with respect to the depreciation which, in his opinion, is properly applicable to original cost, or to book cost, we will then, at that time, determine

whether or not in our opinion objection should be made to it.

At this time, however, our objection goes purely to the depreciation in dollars found by Mr. Biddison to be applicable to his reproduction cost new estimates, and I hope that I have made that clear.

Just one further point that I feel might require a little discussion and that is with respect to the alleged cost of business development which is now rather belatedly referred to as "going concern value." I would like to call your Honor's attention to the fact that Mr. Wheat has stated, and I think certainly correctly so, that this estimate of cost of business development is a part and parcel of reproduction cost new less depreciation. It is all interwoven with Mr. Biddison's estimate of the physical plant, and it is all a part of reproduction cost, and, therefore, if we are to follow the Commission's decision in the Chicago District Electric Generating case, we must, of course, exclude it, we believe, in this case.

Now, Mr. Wheat has cited the Circuit Court of Appeals' decision in the Natural Gas Pipe Line Company case with [fol. 1281] respect to going concern value. He has not, however, shown any similarity of facts as between that case and this. Moreover, the United States Supreme Court, itself, has spoken several times on this subject of going concern value, particularly in the Columbus and Dayton cases, wherein the United States Supreme Court stated that under the facts in those cases, no separate allowance for going concern value should be made.

We believe it to be the law that no separate allowance for going concern value need be made in this case. We respectfully submit that our objection to the five exhibits already named, and "to strike all testimony concerning reproduction cost given in connection with these exhibits" should be sustained.

[fol. 1284] Trial Examiner: With reference to the objection, in so far as it relates to your proposed Exhibit No. 38, there will be no harm whatever in deferring a ruling until [fol. 1285] some later time, when the objection may be

renewed. I think we are in entire agreement, that the subject of depreciation is one thing, you are entitled to introduce evidence concerning, and it is the understanding of the Trial Examiner that this objection is not aimed in any way at the usual evidence concerning depreciation, but only because in so far as any evidence concerning depreciation has been offered by the Respondent, the defendant, at this time, it is in a sense intertwined with the reproduction cost evidence.

Reverting now to the objection in so far as it relates to proposed Exhibits 37, Parts 1 and 2; 39, and 39-A, and the proposed Exhibit 62, and to the opinion of the Commission in the Chicago District Electric Generating Company case, quoted by Commission's counsel yesterday at Page 1227, attention is again directed to the phrase from that opinion, which has been emphasized and restated by Commission's counsel, and to some extent discussed by Mr. Wheat; namely, "In the normal case, we were directed, however, only to determine the actual legitimate cost and the depreciation (that is, the prudent investment) of the utility's property."

In the opinion of the Trial Examiner, there has been no distinction made in the record and counsel for the Defendant has not pointed out any peculiar facts present in this proceeding that would take it out of the category of what the Commission in that opinion described as a "normal proceeding."

[fol. 1286] Since I feel that I am bound by this opinion, and since I feel that there has been no distinction made to take the present proceeding out of the category of "normal cases", I feel prepared to rule on this objection at this time.

However, before making any ruling, I will say that if counsel so desires, counsel may so desire, the Trial Examiner will present to the Commission the question of the inclusion or exclusion of the reproduction cost evidence for such action as the Commission may deem appropriate.

[fol. 1288] Trial Examiner: Will you state what you have in mind for further proof? It was the understand-

ing of the Trial Examiner that with the exception of some minor matter, the testimony had been completed.

Mr. Wheat: I think the understanding of the Trial Examiner was wholly erroneous if that was his understanding.

The testimony is not yet completed in any sense, and it is in no sense minor in character. The testimony to which I have particular reference, will be the testimony of the management of Panhandle Eastern Pipe Line Company, dealing with the history, development, methods of management, and the operation of the company, and it is to that testimony that I have reference in making the suggestion which I have made, and I think it would save everybody's time and energy.

Trial Examiner: Well, that testimony—will that testimony, in any way, change the basic testimony of Mr. Watkins with reference to the financial history of the company?

Mr. Wheat: Why, of course, it will be in no contradiction to the books of the company. That is not what I refer to.

Trial Examiner: Have you in mind some aspect of your further testimony which might affect the historical cost recorded?

Mr. Wheat: No, I have not, sir.

[fol. 1289] Mr. Littman: In the light of that answer, I submit, if your Honor please, that no evidence that Mr. Wheat can offer could, in any manner, impinge upon what has already been established in this record; namely, that the record shows that this is a normal rate proceeding.

Mr. Watkins having testified that the books and records of this company were in such good shape, and that he already knows that the book costs and original costs will very closely approximate each other, I submit to your Honor that the very purpose of making the objection at this time is so that the record may not be unduly encumbered with lengthy cross-examination on these exhibits, and so that time may not be wasted by prolonging the proceedings by reason of the very presence in the record of these exhibits.

Trial Examiner: As indicated a moment ago, the Trial Examiner is prepared to make a ruling at this time unless there is a preference on the part of counsel for the defendant that the matter be submitted to the Commission.

Mr. Wheat: I should think your Honor should wish to submit this particular matter to the Commission. I, of course, wouldn't suggest that you do so, because that is a matter for your own determination, but I do feel that this is a vital matter, and it is an important matter, and it has been my experience before this Commission that this matter and matters of this sort, rulings are frequently with- [fol. 1290] held until after the Examiner has had an opportunity to discuss the problem with the Commissioners. That is my only thought in this matter, and I am sure that the Examiner must, of course, use his own judgment in respect to this item.

Trial Examiner: Does counsel have any remarks to make?

Mr. Gorman: I have none.

Mr. Wheat: I would like to suggest and request that the Examiner obtain a ruling on this matter from the Commission. I believe that would be a fair method of procedure, and therefore, in reply to the Examiner's suggestion, I make that request.

Trial Examiner: Very well, we will act in accordance with that indicated procedure.

Is there anything else before recess until the 27th?

Mr. Lee: On behalf of the petitioner City of Detroit, I should like to do this, if it is permissible—adopt the motion of counsel for the Commission as being concurred in by the petitioner in this case. Whether or not that is necessary, or whether or not that is of any strategic support to the motion, I am not clear, but if it is, on behalf of the petitioner, and the City of Detroit, and the County of Wayne, as represented by Mr. Goodman, with whom I have conferred, but who unfortunately cannot be here this morning, we should like to join in adopting the motion of the Commission's counsel and to exclude the exhibits referred to, and to strike the testimony presented and predicated thereon.



[fol. 1291] Mr. Wheat: Now, as I understand it, that was not the motion of Commission's counsel just stated:

Mr. Littman: I take it, Mr. Lee, you mean you wish, do you not, to join in the motion made by Commission's counsel?

Mr. Lee: That is correct.

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[fol. 1305] C. H. HINTON a witness, having been previously sworn, resumed the stand, was examined and testified further as follows:

By Mr. Culton:

[fol. 1306] Q. Mr. Hinton, in your testimony, you have estimates as to costs of various construction which you expect to have in the future, and some question was raised as to your ability to properly estimate those costs.

I will ask you how long you have been connected with engineering matters? A. Since 1924.

Q. What experience have you had in estimating costs for well construction, gas-well construction in the Hugoton and Panhandle fields?

A. I have been in constant touch with all drilling for the past four years and prior to that time, I made a study of the cost of the probable development required to supply the Detroit market before that line was built.

Q. In that work, have you become familiar with the costs actually incurred by the company in its drilling operations?

A. Yes, sir, at the completion of each well, we naturally get the total cost of that well.

Q. And under whose supervision is that done?

A. That is under my supervision.

Q. Have you, during that period of time, had any experience in estimating the costs of gathering lines and well lines?

A. Yes, since 1929, I have had considerable experience [fol. 1307] on pipe-line estimating work.

I have been on the construction of approximately two thousand miles of pipe line and it was necessary that the engineer make out the monthly estimate for the contractor and, naturally, the engineer must be well informed upon the prices in order to make out the estimate.

Q. Did you do that character of work as engineer?

A. Yes, sir.

Trial Examiner: Just a moment, Mr. Culton. Mr. Hinton's exhibits, I believe, were 42, 43, 44, 45 and 46. Were there any others?

Mr. Culton: That is right, Mr. Examiner.

The questions are related particularly to Exhibits 42 and 43.

Trial Examiner: That is the written testimony and the Schedules?

Mr. Culton: That is right.

Trial Examiner: The other exhibits which were identified by Mr. Hinton were all maps, I believe.

By Mr. Culton:

Q. Mr. Hinton, are you familiar with the prices which have been paid by the company over the past few years for different types of construction?

[fol. 1308] A. Yes, sir, I am.

Q. How did you obtain that familiarity?

A. From the records of the company.

Q. I believe you testified that in your exhibit you used the drilling-cost unit which was used by Mr. Bid-  
dison? A. Yes.

Q. How does that cost compare with the prices which have been paid by the company over a period of several months or years?

A. That price is based upon what has been paid by the company for several years, with the exception of the liner installation in the Hugoton field.

We have not used liners in our Hugoton wells and that cost was estimated by me because I know about how many days it is going to take to make the liner installation. I know the price of the material required.

Q. You know that from your own experience?

A. Yes, sir.

Q. You also made some estimates as to the cost of measuring stations. What do you personally know as to the cost of measuring stations?

A. I have been on enough measuring stations that I know the cost used was just about what I would use, but I further checked that by going back to the company records.

Q. And you find that they are in accord, the prices you [fol. 1309] used?

A. Slightly lower than this price, but due to the increase of the going price of valves, that was raised.

Q. What basis did you use for the unit cost for well lines? A. In that—

Q. (Interposing) In your exhibit.

A. I used the figures that were worked up by Mr. Biddison in that.

Q. Have you, since that time, checked those figures with respect to the company records? A. Yes, I have.

Q. And how do you find the figures compare with the company's experience?

A. Well, I find that there is some fluctuation in the prices. Now, the labor price on the 4 1/2 inch there on the longer lines which have been laid during the past three years, the labor price is slightly lower than the price we used, that is, Mr. Biddison's price, but on the short lines, that is, lines less than one mile in length, why, the majority of them have run considerably in excess of the figure which Mr. Biddison used.

Q. Can you give us an idea, on a percentage basis, as to how those increases or decreases are?

A. Totalling up the number of wells that have been [fol. 1310] built the past three years, taking those direct from the company records, I find that the deviation is less than five percent.

Mr. Littman: Did you mean wells or well lines?

The Witness: Well lines.

By Mr. Culton:

Q. What can you say as to the expense of constructing the gathering lines as distinguished from the well lines? What basis did you use on those lines?

A. In this exhibit, I used all of the figures which were worked up by Mr. Biddison.

Q. Since you testified, have you checked the company records as to past costs on those lines?

A. I have.

Q. How do those costs compare with the figures used by Mr. Biddison?

A. They show slightly under Mr. Biddison's figures, but the price of pipe has changed. I used the pipe price that actually was on the books for my comparison and the increase in the cost of material will make it up. The labor figure is approximately the same.

Q. In other words, the present increased price of material will offset any difference there is between the price on the books and the price used by Mr. Biddison?

A. I do not believe the present price would. I think it [fol. 1311] would probably raise it some, but the price that I used as of June 30 would about equal it.

Q. You testified with respect to the construction of dwellings for employees. What basis did you use for determining that cost when you were preparing your exhibit?

A. Well, I am fairly familiar with building costs, and I used some of the information that was on the company's books and I used my judgment on the other portion of it.

Since that time, I have gone back and checked the cost of the houses built in the producing area of our company, and have found that the cost was, I believe, slightly under \$5,800, covering everything that is charged to the house, but we had some exceptionally low bids on the houses for that year.

I have made up a detailed estimate of the cost of those buildings, and find that it runs \$165 more than the \$6,000 which I had in there.

I might add that I used for that purpose a contract price which was submitted for the house itself. The other costs were in about the same proportion as shows on our books for the same type of construction.

Q. You allowed for the construction of a hotel, I believe. How did you arrive at the price for that hotel?

A. That was a little bit difficult, because we want to build that hotel in such a manner that, in the future, we might want to make two dwellings from it, so we are building two five-room dwellings and building a connecting room which will be used for a kitchen and for a passageway, and I estimated that portion of it myself.

Q. And obtained the information from the five-room dwellings from the records on other houses?

A. I checked it from the records, yes.

Q. There was some testimony with respect to the construction of jetties in the Cimarron River. How did you arrive at an estimate of the price for those jetties?

A. That was a contract price, that is, in the form of a contract now and it is \$6,478 without any company cost charged to that job. I used \$6,500.

Q. There is also an estimate by you as to the expense of a river crossing across the Cimarron River from the loop line. How did you arrive at that cost?

A. I obtained a bid from a contractor, and then just added the price of the material and labor based on past river jobs.

Q. There was a telephone line serving Optima. How did you arrive at the cost of that?

A. By taking the cost of the material required, and I used about 25 percent of the material price for labor, by just counting up to myself what the man-hour requirements would be.

Q. Using your judgment as to the labor time required?

A. Yes, sir, I have been on several hundred miles of telephone construction.

[fol. 1313] Q. There was some testimony by you with respect to power at different points in Texas and Kansas and, probably, also Oklahoma. How did you arrive at the cost of the compression required?

A. The costs on the compressor stations are based on book costs for the miscellaneous work and the power or equipment itself is based on the last quoted price.

Q. By book costs, you mean costs of former construction of similar type?

A. That is right, previous costs.

Q. I believe you state that all of the installing of liners and tubing and acidizing is under your general supervision,

and you keep in constant touch with the cost of those operations? Q. A. That is right.

Q. Have you had anything to do with the preparation of budgets for the company?

A. Yes, sir. That is what I have been working on for the past two weeks.

Q. How long have you been assisting in the preparation of annual budgets?

A. For the past several years.

Q. In doing that work, is it necessary for you to become familiar with the costs of construction of different [fol. 1314] types in the field end of the system?

A. It naturally would be, or we could not make a budget.

Q. That includes the drilling of wells and the construction of lines, and things of that character?

A. That is right, because we weigh different methods of improving our field system and, naturally, we must be familiar with costs in order to decide whether we should build one line and drill a certain number of wells in one portion, or maybe cut down the expenditure by moving that over to another part of the system which fits the line design in a better manner.

[fol. 1316] Mr. Clinton: Mr. Examiner, I told counsel for the Commission the last time—it was not on the record—Mr. Wallace had discovered that, through error on his part, he had overlooked the circumstance that a number of leases in the Hugoton field were only owned to the extent [fol. 1317] of a half interest by Panhandle Eastern.

He has prepared, and we have printed it, a list of corrected sheets for each of those leases, and a corrected total, which reduces his valuation, I think, approximately \$250,000.

Now, we do not have Mr. Wallace here, but I think, with the explanation, probably he would not be required to be here. I will explain that the sheets which had been prepared for him showed Panhandle Eastern Pipe Line Company, et al, and it did not register with him that Panhandle Eastern did not own the entire leasehold interest.



The change is to show, at the bottom of each page, the market value of an undivided one-half interest, and to furnish corrected summary sheets.

Trial Examiner: That will effect a correction of proposed Exhibit 37?

Mr. Culton: Yes, and we ask that that be marked Exhibit 37-A, if we may. We have copies to distribute.

Trial Examiner: That is the correction sheets which you now propose to offer?

Mr. Culton: Yes, sir.

Trial Examiner: As Exhibit 37-A?

Mr. Culton: Yes.

Trial Examiner: They may be so marked.

[fol. 1318] Mr. Littman: May I also inquire whether or not the corrections contained in Exhibit 37-A will not also affect the figures in Biddison's Exhibit 39?

Mr. Culton: They will, to the same extent.

Mr. Littman: In other words, this correction contained in Exhibit 37-A can be very quickly applied to Exhibit 39-A?

Mr. Culton: Yes.

[fol. 1319] Trial Examiner: I assume, Mr. Culton, from a hasty examination of your Exhibit 37-A, there is no matter contained in it which would, in any way, be necessary to ascertain the actual original cost of the properties of your company?

Mr. Culton: There is not. They do not purport to reflect original cost, Mr. Examiner.

Trial Examiner: They are entirely related to the re-appraisal of present value?

Mr. Culton: That is right.

The Examiner: Of leases?

Mr. Culton: That is right.

Mr. Littman: I would like the record to show an objection to Exhibit 37-A for the reason that it is a part of, and relates, to the reproduction cost estimate.

Mr. Culton: We may stipulate that the same objections to Exhibit 37 may apply to Exhibit 37-A.

Mr. Littman: Yes.

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[fol. 1408] P. McDONALD BIDDISON, a witness, having been previously sworn, resumed the stand, was examined and testified as follows:

By Mr. Wheat:

[fol. 1410] Q. While we are on this type of matter, have you consulted Mr. Wallace as to the corrections made by Mr. Wallace to his Exhibit 37 which were introduced yesterday morning as Exhibit 37-A? A. Yes, I have.

Q. Will you state what changes, if any, such changes by Mr. Wallace would make in any of your former testimony?

A. The change in values of leases by Mr. Wallace, as I have determined it by a subtraction process, is \$355,801.38.

Q. Which figures are you using now to arrive at that subtrahend?

A. I am using the figure of \$8,695,524 as the value of [fol. 1411] leaseholds originally derived by Mr. Wallace and as used by me in Exhibits 39 and 39-A.

I am reading the figure from Exhibit 39-A, Line 3, Column B. The new figure which has been submitted in correction sheets—

Q. (Interposing) Exhibit 37-A, are you referring to?

A. I think it has been marked Exhibit 37-A for identification, is \$8,339,722.62.

Now, in connection with that correction, if I were to run that through in detail by the same process of correction which I used in Exhibit No. 39, I would feel that it would

be proper at that same time to put through some other corrections.

Q. What are they?

A. One of those other corrections is the matter of prices on main compressor units and auxiliary engines with regard to which I have previously testified.

I testified in regard to the increase in the price on Cooper-Bessemer 1300 horsepower units, and I testified to the increase in price also on Ingersoll-Rand vertical units. The price increases on those main compressor units amounts to about \$48,634.08, engines of that general style, and applying the rate of increase to the twenty-three 1000 horsepower units and forty-two 1300 horsepower units in the system, that amounts to \$523,800, so those price increases account for \$572,434.

In connection with the price of pipe, there is another matter that should be given some consideration in this [fol. 1412] connection. Panhandle Eastern Pipe Line Company has just recently, within the last week, actually placed an order for about 46,000 tons, as I recall it, of seamless pipe, 18-inch to 24-inch.

Q. May I ask, Mr. Biddison, aren't you in error, isn't it 12-inch to 24-inch?

A. Yes, it does cover sizes down to 12-inch.

Mr. Littman: Just a moment, please.

I would like to enter an objection to this testimony, first, for the reasons already stated. The Commission's staff objects to any and all testimony with respect to reproduction costs and I take it that your Honor will allow an objection to all of this testimony without the necessity of interrupting from time to time.

Mr. Wheat: We will stipulate that your objection goes to any items of that sort.

Mr. Littman: I have also a further objection to this testimony, and that is this: If this witness is testifying that his original estimate of reproduction costs as of June 30, 1941, is in error and that he is now aware, for the first time, of errors that appear in that estimate, then we have one situation but, if this witness is now going to:

testify to increases, alleged increases in prices that have taken place since June 30, 1941, of course those would not affect his estimate as of June 30, 1941.

I am not clear, and perhaps Mr. Wheat could clear me up [fol. 1413] on it, as to whether this witness is now testifying that his original exhibit of reproduction cost, I believe it is Exhibit 39 and Exhibit 39-A, is now being corrected for certain errors, whether certain changes are now being made because of this witness' mistakes in his estimate as of June 30, 1941, or whether he is now testifying to increases in prices that have taken place since that time?

I would like to have made clear the purpose of this testimony.

Mr. Culton: I think if you will just wait, you will withdraw that particular objection.

The only thing the witness is going to do is to show an unusually advantageous contract which this company has entered into recently. Bearing in mind this is a general investigation by the Commission, I think the information will probably be of interest to the Commission.

Mr. Wheat: And I am sure it will be of interest to counsel if he will hold off a moment.

Mr. Littman: I take it we have a general objection to all testimony on reproduction costs, have we not?

Trial Examiner: That was covered by the statement of Mr. Wheat that counsel agrees that all testimony with reference to proposed Exhibits 39 and 39-A shall come in, if at all, subject to the objection now pending.

Mr. Littman: Well, I want to reserve my right to have [fol. 1414] this testimony stricken.

Trial Examiner: You made your record. Proceed.

By Mr. Wheat:

Q. Go ahead, Mr. Biddison. You were discussing the pipe matter.

A. There is, in the system of Panhandle Eastern Pipe Line Company, a considerable amount of seamless pipe. In the valuation, Exhibit No. 39, there are \$7,318,856.27 worth of seamless pipe, 18-inch and larger.

That figure may be subject to slight revision. It was taken off last night, and the additions are by longhand and there might be some slight error, but that is substantially the amount of values for pipe that is in the valuation; that is, the 18-inch and larger seamless pipe.

The price at which that pipe is priced in the valuation is \$65 per ton, except for the 18-inch, which is priced at \$67.50 per ton, those prices being net f. o. b. mill. The recent purchase was—

Q. (Interposing) When?

A. Within the last week, by Panhandle Eastern, was at \$64 per ton average for their immediate pipe requirements, 12-inch to 24-inch, inclusive.

Q. You have not a separate price for each size, have you?

A. No, I do not have and Panhandle Eastern does not have. The price given is an over-all price for the specified tonnage.

[fol. 1415] Q. Proceed.

A. That purchase indicates that the price used by me on seamless pipe is a little bit high, substantially \$1.00 per ton. \$1.00 per ton out of \$64 per ton is 1.56 percent and 1.56 percent on \$7,319,000, practically, is approximately \$114,000.

Q. Of course, this happened after June 30, 1941, didn't it?

A. That is true, that the purchase was actually closed at that time, but the negotiations had been in progress since prior to June 1.

Yes, sir, and it was only at this late date that the actual price could have been determined by the placing of an order.

Now, considering the situation with regard to pipe, and the situation with regard to compressor engines, and the correction by Mr. Wallace, I stand on the sum total of my figures.

Q. Why?

A. Because there is a tendency to substantially offset, item for item, the increases against the decreases and, in any event, determinations of this sort are not made with exactitude.

As a matter of fact, there are no operations in engineering or science, except the counting of units, which are done [fol. 1416] with exactitude. They are done with varying degrees of precision and the amount of error, one way or the other, resulting from making these three adjustments, would not change the sum total of the estimate sufficiently to justify revision or argument about the difference.

[Vol. 1422] Q. Now, Mr. Biddison, have you, since the last hearing in this proceeding, prepared a statement entitled, "Panhandle Eastern Pipe Line Company and Subsidiary Companies—Amount of Depreciation on Book Cost of Property as of June 30, 1941"? A. I have.

Q. Is the document which I now show you the document to which you have just referred? A. It is.

[fol. 1423] Q. Was this prepared by you, or under your direction? A. It was.

Q. And does it correctly show what it purports to show, in your opinion? A. It does.

(The Document Referred To Was Marked Exhibit No. 69 For Identification.)

[fol. 1424] Mr. Littman: Mr. Biddison, coming back again [fol. 1425] to your claimed reproduction cost, there has been some confusion on this record, due to numerous changes and corrections and, for purposes of clarification, I would like to have you, at this time, read into the record the total reproduction cost new, and total reproduction cost new, less depreciation, as of June 30, 1941, which you are claiming is your estimate.

The Witness: The figures called for will be found on Page 1 of Exhibit No. 39-A as to cost of reproduction new, which is, \$83,833,448.54. The deduction from that figure for depreciation which has occurred in the property—



Mr. Wheat: (Interposing) That is shown on Exhibit 62, is it not?

The Witness: That is shown in Exhibit No. 62, and will be found on Page 1, in the amount of \$4,121,749.80, with a resulting present value shown on that same page of \$79,711,698.74.

Mr. Littman: Now, Mr. Biddison, are the figures which you just read the same figures that you testified to several days ago, before the error of Mr. Wallace's estimate of market value of leaseholds was corrected?

The Witness: They are; as I have just explained today that those were the figures which I would stand upon after making adjustment for that matter and the other matters to which I testified.

Mr. Littman: In other words, the estimate today is the same as it was before Mr. Wallace's corrections in the [fol. 1426] amount of \$355,752 was made, isn't it?

The Witness: The sum total of the answer is the same as I explained on testimony today.

[fol. 1439 to 1449 inc.] By Mr. Wheat:

Q. All right. Now, Mr. Biddison, will you turn to Exhibit 69 for identification, which I believe you have just identified as having been prepared by you and as [fol. 1450] showing the amount of depreciation referable to the book cost of the property as of June 30, 1941; is that correct? A. That is correct.

Q. Will you please explain what is contained on that exhibit?

A. In column (A) are shown the account numbers for the property classifications as they appeared upon the monthly financial reports of Panhandle Eastern Pipeline Company.

In column (B) the accounts are named.

And in column (C) is shown the amounts as reported for the corresponding classifications of property.

Q. As of June 30, 1941? A. Yes, sir.

Q. Proceed.

A. In column (D) is shown my estimate of the amounts to be deducted from column (C) for depreciation which has occurred in the property.

This amount of depreciation which is set out in column (B) for each classification of property is based upon the same knowledge of property and the same observations of property as were used in the compilation of the similar [fol. 1451] deductions for depreciation in Exhibit No. 62.

In my Exhibit 39 and 39-A dealing with reproduction cost, the groupings of property were not in all cases the same as carried on the books and on the monthly operating financial reports.

In order to make application of the information as to the condition of property to the amounts shown in column (C) on Exhibit 69 I have used Exhibit 62 to weigh out the deductions there shown to determine the percentages produced by such weighing to apply to column (C) on Exhibit 69, and in that manner have arrived at the amounts in column (D).

The amounts in column (E) are arrived at by deducting the amounts shown in column (D) from the amount shown in column (C), and column (E) represents the book figures on property which I understand to be cost less the depreciation stated in column (D).

Q. In that connection, is there any further explanation which you think would be proper at this time with respect to the items or any of them on Exhibit 69, in order that they may be readily understandable?

A. I think the only thing that would be necessary to explain at all might be some of the weighing out of the data in Exhibit No. 62 to arrive at its application in this case, but that's a purely arithmetical process.

[fol. 1452] The data itself has all been used in the preparation of Exhibit No. 62 and I have testified to that and explained in that connection.

Q. All right. Will you state the amount of accrued depreciation as of June 30, 1941, which you have found from

your examination to exist in the property of Panhandle Eastern Pipeline Company and its subsidiary companies in relation to the cost of the property in question?

A. As shown on page 2 of Exhibit 69, line 31, column (D), the amount is \$3,903,102.46.

Q. Thank you. Mr. Biddison, have you also prepared a tabulation starting with the valuation of September 30, 1938, which you stated yesterday you had made with respect to the property of Panhandle Eastern Pipeline Company and which I believe is one of the items which was requested by Mr. Chamberlain, and have you brought that item up to date by the addition of net additions and betterments since that time?

A. I have.

Q. Does the single sheet which I now show you contain a summary of the data which you have used in that connection (handing paper)?

A. It does.

[fol. 1453] The Document Referred To Was Marked Exhibit 70 For Identification.)

By Mr. Littman:

Q. Mr. Biddison, calling your attention to Exhibit 69, is the depreciation shown in Column (D) the depreciation arrived at by the methods which you described in connection with Exhibit 62?

A. It is.

Q. That is, generally the observed method, is it not?

A. Generally the observed method, but some of the items were not the result of specific observation. It is the observed method as I explained in my testimony with respect to Exhibit No. 62.

Q. Mr. Biddison, I want to call your attention to line 8, "Leaseholds." I note that you have no deduction [fol. 1454] for depreciation of the leaseholds. Will you explain why you deducted nothing for depreciation on leaseholds?

A. The explanation with respect to that item in Exhibit 69, is that while some depletion has occurred upon leaseholds I have not considered, in view of the fact that there was no determination of the value, that it was requisite to make a deduction from this book figure of cost for the determination in column (E) of a figure which might be interpreted as value.

Q. Well, the figure for leaseholds shown in column (C) is the book cost of the leaseholds when they were originally acquired?

A. That is true.

Q. And the figure that you show in column (E) entitled "Book Cost Less Depreciation" is precisely the same figure, is it not?

A. Precisely the same figure. I made no deduction in column (D).

The Witness: Column (D) does represent depreciation and I made no deduction in that column for depletion.

[fol. 1455] By Mr. Wheat:

Q. Mr. Biddison, is it a fact, as stated on line 1 of Biddison Exhibit 70 for identification, that your valuation of total fixed property of this Panhandle Eastern Pipe Line Company and its subsidiaries as of September 30, 1938, amounted to \$64,544,104.58?

A. It is.

Q. Mr. Biddison, is the document which I now show you a copy of the 1938 study to which you have just referred (handing book)?

A. It is.

Mr. Wheat: May it be marked Biddison Exhibit 71 for identification.

Trial Examiner: It will be so marked.

[fol. 1456] Q. Mr. Biddison, is the document which has been marked Biddison Exhibit 71 for identification a copy of the document in which appears the figure which I have just read to you?

A. It is.

Mr. Littman: Pardon me.

May I inquire here: Is the document identified as Bid-dison Exhibit 71 for identification an estimate of the reproduction cost—is this reproduction cost?

Mr. Culton: Yes, as of September 30, 1938.

Mr. Littman: I would like the record to show that counsel for the Commission objects to the entire line of inquiry with respect to this exhibit for reasons already stated in the record.

Mr. Wheat: We will stipulate, Mr. Examiner, that the objection of Commission's counsel, heretofore stated, may go to any questions in connection with this exhibit or these two exhibits which deal with problems of reproduction cost.

You understand, Mr. Littman, that other items not covered by the general blanket of reproduction cost are contained on Exhibit 70 for identification, and I shall question the witness on those and, I take it, that in that instance [fol. 1457] you would prefer to make any additional objections, should you have them, separately for any such items.

Mr. Littman: Yes. Well, my objection goes only to the reproduction cost evidence.

Mr. Wheat: That's what I thought, and, to save time, we will be glad, as I have stated, Mr. Examiner, if it is agreeable, to stipulate to that effect.

Mr. Littman: Is it agreeable to the Examiner for us to stipulate to that effect?

Mr. Examiner: Certainly it is perfectly clear from this record that any matter which has come into the record since the objection to the evidence as to reproduction cost was made, accompanied by motions to strike all testimony relating to reproduction cost, heretofore received, shall equally apply to any subsequent additions by way of testimony or exhibits based upon or relating to the reproduction cost new of the property under consideration.

Mr. Littman: Not only reproduction cost—

Trial Examiner: (Continuing) I think the acquiescence of counsel for the defendant has been clear and complete as to each one of these items when objection was raised.

Mr. Littman: Our objection goes, if you Honor please, goes not only to the reproduction cost new but also depreciated.

Mr. Wheat: And of course it is understood, Mr. Litt[fol. 1458] man, that if you at any time have any other objection or further objection to any of this testimony, why, we would assume that you will make that as a separate objection.

Mr. Littman: Yes.

Mr. Wheat: Our stipulation of course goes to the objection which you made to the data contained in certain exhibits at the last main hearing of this proceeding.

Mr. Littman: And to future exhibits and future testimony with respect to reproduction cost evidence.

Mr. Wheat: That is correct, yes, just so we understand each other.

Mr. Littman: Yes.

Mr. Wheat: Fine.

By Mr. Wheat:

Q. Mr. Biddison, how did you arrive at and what is the nature of the figure of \$64,544,104.58, shown in line 1 of Exhibit 70 for identification, and also shown as the final result of your 1938 valuation on Exhibit 71 for identification?

A. On page 3 of Exhibit 71 for identification, near the bottom of the page, the third line of figures from the bottom, is shown the item of "Total Fixed Property— \$64,544,104.58" in the column headed "Reproduction Cost New."

That is the figure appearing on Exhibit 70 for identification at line 1.

[fol. 1459] Embraced in that total in the classification of "Production System Property" on page 2 are "Produc-



tion System<sup>a</sup> Leaseholds" in the amount of \$4,592,116.01, and "Gas Wells and Equipment" in the amount of \$1,882,830.

As indicated on page 7, and as explained in the letter of transmittal at the front of the report—

Q. Exhibit 71?

A. Yes (Continuing)—the leases and the wells therein were evaluated by Mr. Ralph E. Davis.

Q. Did you accept Mr. Davis' figure?

A. I have used Mr. Davis' figure. I have accepted it and used it.

Mr. Wheat: I may say, Mr. Examiner, we will tie that in by Mr. Davis himself, because I think it will be necessary here.

A. (Continuing) His report was dated February 1, 1937.

That report evaluated the leases in Kansas and Oklahoma portions of the Hugoton Field at \$2,019,000, and the leases in the Panhandle Field of Texas or Amarillo Field, as indicated on page 8, at \$3,061,000.

I have estimated the reproduction cost of wells, which for the Hugoton Field are shown on page 7, if amounted at that time to \$541,595, and I evaluated the wells in the Amarillo Field as of that date, as shown on page 8, at [fol. 1460] \$556,890.

Since the values placed by Mr. Davis upon the property included the values of wells and leases, I deducted the well values from the total values and assigned the balance to the leases.

I have then in both cases added to the figures so obtained additional leases obtained between the date of the Davis report and the date of the evaluation and have deducted the leases surrendered in the interim, and I have thereby arrived at a division between lease cost, lease value, and well value.

Q. You are now speaking entirely of Exhibit 71 for identification, are you not? A. Yes.

Q. Proceed.

A. The balance of the property has been determined by estimating reproduction cost or by taking book cost in substantially the same manner as I explained for the valuation made in 1941 in Exhibit No. 39.

Certain items which were recently constructed or which were of little importance were taken at their book figures.

The items of transmission mains were estimated upon construction costs determined from an analysis of the contract prices for recent construction.

Q. During 1938? A. During 1936 and 1937 largely. [fol. 1461] Q. I see.

A. The estimate for compression stations was predicated upon an analysis of the contractors' construction reports to Panhandle Eastern Pipeline Company.

The Liberal Gasoline plant was determined in the same manner, and its cost is shown on page 2, I believe, the book cost on that date.

Q. It was practically new then; was it not?

A. It had been constructed in 1936 with an addition in 1937 so it was practically new property.

The items of "General Office Equipment" and "General Garage Equipment" and "General Laboratory Equipment" and "General Tools and Implements" groups under "General System Property" on page 3 are taken from the books.

"General Communication Equipment" was estimated by inventorying a typical mile of various types of construction on the system, pricing out that equipment and applying thereto a labor ratio determined from a study of telephone line construction.

The items of "Intangible Fixed Capital" and of "Undistributed Construction Expenditures" were determined substantially in the same manner as for Exhibit No. 39. The details do not appear in the report.

The item of "Construction Work in Progress," shown [fol. 1462] on page 3, and of "Materials and Supplies", on that same page, are the amounts shown by the books as of the valuation date, September 30, 1938.

Q. Let me ask you, Mr. Biddison: On pages 2 and 3 of Exhibit 71 for identification, you have, do you not, two columns of figures after the various classes of property, one headed "Reproduction Cost New" and the other headed "Present Value"?

A. Yes, sir.

Q. And what do those two columns represent?

A. The column headed "Reproduction Cost New" represents the estimated cost of reproducing the property in new condition as of September 30, 1938.

The column headed "Present Value" represents the residual amount after deducting from reproduction cost new the amounts by which I estimate the various classes of property had lost value at that time.

Q. Through the accruing of depreciation?

A. Through the occurrence of depreciation in property.

Q. Yes. Mr. Biddison, was this report, Biddison Exhibit 71 for identification, prepared by you at the request of Panhandle Eastern Pipeline Company?

A. It was.

Q. And do you believe that it reflects the reproduction cost new of the property as it existed on September [fol. 1463] 30, 1938? A. I do.

Q. Now, will you turn to Biddison Exhibit 70 for identification and state where you obtained the figure of \$6,380,886.03, listed in line 4 as "Net Additions to June 30, 1941."

A. I obtained that figure from the controller, Mr. Leith Watkins.

Q. Will you now explain what else you have done in connection with Biddison Exhibit 70 for identification and what it shows.

A. In Line 1, the item of "Fixed Property", on Exhibit 70, includes an item of "Construction Work in Progress" of \$63,215.38, which I have deducted from the "Total Fixed Property."

I have then added the amount of net additions from September 30, 1938, to June 30, 1941, as furnished to me by Mr. Watkins.

This results in a total fixed property on the basis of the 1938 values and "Net Capital Additions as of June 30, 1941," and as shown in line 5, Biddison Exhibit 70 for identification, of \$70,861,775.23.

[fol. 1464] Q. To that you have added certain items, have you not? What are they?

A. To make this comparable to Exhibit No. 39 I have added working capital in the amount of \$1,569,000, shown at line 6, and taken from the same source as the same amount shown in Exhibit 39 and Exhibit 39-A, and I have added the value of gas-purchase contracts derived in the same fashion and from the same source as similar items appearing in Exhibits 39 and 39-A, and I have added "Cost of Business Development" in the amount of \$6,053,992.48, derived from the same sources and in the same manner as the identical figure appearing in Exhibits 39 and 39-A, and have arrived at reproduction cost new of the plant property and business existing June 30, 1941, based upon the 1938 values and subsequent capital additions and the addition of the other items just explained, of \$80,070,681.71.

Mr. Littman: I would like to state at this time, if your Honor please, that Commission's counsel has a further objection to Exhibits 70 and 71 for identification for the reasons that they are wholly immaterial to the issues presented in this proceeding.

[fol. 1465] Mr. Culton: Mr. Examiner, so that the record of the defendant may be clear: We are offering that on several grounds:

First, it shows the experience which this witness heretofore had with the properties of this company.

Second, the values called for by one of the interveners in the case.

Third, it is one of the matters referred to in the order relating to the subpoena duces tecum.

The next reason is that it is corroborative of the witness' testimony with respect to the present reproduction cost of the properties.

And, finally, because it is a valuation made at approximately the date the National Gas Act went into effect, in the summer of 1938, and for the purpose of showing the value of the defendant's property as of that date.

[fol. 1470] LEITH D. WATKINS, a witness, having been previously sworn resumed the stand, was examined, and testified further, as follows:

Direct Examination—Resumed.

By Mr. Wheat:

Q. Mr. Watkins, since the conclusion of the hearing last held in this proceeding, have you prepared a one-page statement headed "Panhandle Eastern Pipeline Company and Subsidiary Companies—Net additions to Gas Plant Per Books from October 1, 1938, to June 1, 1941."

Is the single sheet which I now show you the statement in question (handing)?

A. It is.

Trial Examiner: It will be marked for identification as Watkins Exhibit 72.

[fol. 1471] By Mr. Wheat:

Q. Mr. Watkins, I think you have stated that this document which has been marked Exhibit 72 for identification was prepared under your direction?

A. That is correct.

Q. From the books of the company?

A. That is correct.

Q. And does it in your opinion correctly show what it purports to show?

A. It does.

Q. Now, I note the figure \$6,380,886.03 as being the same figure which was testified to by Mr. Biddison this

morning as the net additions to gas plant. Did you furnish that figure to Mr. Biddison at his request?

A. I did, as representing the net additions to gas plant per books from period October 1, 1938, to June 30, 1941.

Q. And would you please describe what is shown on Exhibit 72 for identification.

A. Exhibit No. 72 for identification contains a statement by classifications of property, showing the increase or decrease in the investment per the books of Panhandle Eastern Pipeline Company or its subsidiary companies in those segregated classifications during the period from October 1, 1938, to June 30, 1941.

[fol. 1472] Q. What do the black figures show in column (B)?

A. The black figures in column (B) represents increases, while the red figures shown in the same column represent decreases, in investment during the period.

Q. And the total shown at the bottom of the page, and which I have heretofore read into the record is the net of the black figures over the red figures; is that correct?

A. That is correct.

Q. Mr. Watkins, have you also compiled a document consisting of a number of pages headed, "Comparison of Costs of Certain Equipment, Materials and Labor—Panhandle Eastern Pipeline Company and Illinois Natural Gas Company"?

A. Such a document has been prepared under my direction.

Q. Is the document which I now show you the document to which you have just referred (handing)?

A. It is.

[fol. 1473] Q. You say it was prepared under your general supervision?

A. That is correct.

Q. And does it in your opinion correctly show what it purports to show?

A. It does.

Trial Examiner: It will be marked for identification as Exhibit 73.



Exhibit No. 73 for identification contains a comparison of costs of certain equipment and materials and labor used either in construction or operation by Panhandle Eastern Pipeline Company and its subsidiary companies for the period shown in the various charts or tables contained in the document from which the charts were prepared for several classes of such materials or equipment.

[fol. 1474] A. Chart No. 1 of Exhibit No. 73 is a comparison of the cost of labor man-hours in cents per man-hour for the months of July, 1938, and September, 1941.

Q. What were the figures?

A. For July, 1938, the cents per man-hour of labor cost was 58 cents and for September, 1941, 82 cents.

Q. Do those figures in your opinion show that it now costs the company more per man-hour of labor than it did in recent periods?

By Mr. Littman:

Q. Before you leave chart No. 1, Mr. Watkins, I would like to inquire what labor is included in chart No. 1?

A. There is a table for charts No. 1 and No. 2 immediately following chart No. 9, which shows in some substantial detail the labor included in not only chart No. 1 but chart No. 2 as well.

By Mr. Wheat:

Q. In general what is that?

[fol. 1475] A. In general the labor is that of foreman, chart changers and well tenders and laborers in the production system, and foremen, line-walkers, welders and laborers in the pipeline section of the transmission department; compression engineers, auxiliary engineers, and oilers in the compression section of the transmission department; meter engineers, meter men in the measurement division of the transmission department; telephone system, linemen; stillmen; boiler men and oilers in the gasoline and dehydration operation.

Q. Under the "telephone system" only the linemen are shown, is that correct? A. That is correct.

Q. Under the "gasoline and dehydration plant" are the stillmen, boiler men and oilers that you mentioned?

A. That is correct.

Q. Will you turn now to chart No. 2 and state what is shown on chart No. 2?

A. The first block to the left in the upper section of chart No. 2 gives a comparison of man-hour labor cost in the production system for the month of July, 1938, with September, 1941.

Q. And those figures are taken, are they, and the heights of the bars represent, do they, items from the table for charts No. 1 and No. 2 under the heading "Pro- [fol. 1476] duction System"?

A. They do.

Q. In addition to, that have you shown the charts of labor costs and labor man-hour costs for transmission pipe lines, transmission compressors, transmission measurement, the telephone system, and the gasoline and dehydration plant?

A. I have on this same chart No. 2.

Q. And all of those items are covered, are they, on the table for charts Nos. 1 and 2? A. They are.

Q. And the totals at the bottom of that table are the totals, are they, which were used in the preparation of chart No. 1?

A. They are.

Mr. Littman: May I inquire, Mr. Watkins?

By Mr. Littman:

Q. Tell me whether or not the amount shown in your total for charts Nos. 1 and 2 are operating expenses, or do they include costs of construction?

A. Principally they are operating expenses. The reason there is no comparison given for construction is because of the varying nature of construction projects during the period.

It is the witness' belief, however, that the same general trend of costs would be in evidence had such charts been prepared.

[fol. 1477] Q. Are you prepared at this time to say whether or not the figures in table for charts Nos. 1 and 2 are all operating expenses or not?